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2.

Annual Report

of the

Supplies of Water available for Irrigation Works and of the Discharge from Catchment Areas in the Bombay Presidency

133255

For the Year 1933

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[Price—Rs. 6 As. 3 *or* 10*s*.]

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In paragraph 11 of a note dated 20th June 1906 the Inspector General of Irrigation required the following information regarding projects to be given:—

(*a*) Names and location of projects.

(*b*) Position and date of institution of existing river gauges for each project.

(*c*) Position of additional river gauges which it is now considered expedient to institute.

(*d*) Present procedure as to the observation of river discharges in case of rivers now gauged for new projects and that which is proposed in future with regard to these and others on which it may be considered expedient to establish gauges.

In paragraph 12 of the same note the following were required :—

(*i*) An index map to the scale of 8 miles to one inch in folded mounted sheets of convenient size, with the location of hills indicated by shading and showing as far as possible the following particulars with regard to each project :—

(*a*) Serial number.

(*b*) Configuration of catchment area where determined, otherwise the location to be indicated.

(*c*) Position of all existing rainfall stations : these to be indicated in a distinctive manner.

(*d*) Position of all proposed additional rainfall stations : these to be also shown in a distinctive manner and differently from (*c*) *supra*.

(*e*) Alignments of existing canals.

(*f*) Alignments of proposed canals in cases in which determined, and in which the length exceeds 10 miles.

(*g*) Location of existing river gauges which concern new projects, and sites proposed for additional gauges for the larger projects.

(*h*) Drainage features of the country, town and village sites and other topographical features usually shown on maps of this scale.

(*ii*) A tabular statement of projects giving the following information :—

(*a*) Serial number as on the index map.

(*b*) Name of projects.

(*c*) Catchment area in square miles when determined.

(*d*) Number of rainfall stations within the catchment area.

(*e*) Additional number of rainfall stations proposed within the catchment area.

(*f*) Frequency of river discharge observations in the past.

(*g*) Proposed frequency of river discharge observations in future.

(*h*) Remarks.

(*iii*) A report showing that the proposed arrangements will be adequate.

STATEMENT I.

Position of River Gauges in Sind.

Report as per paragraph 11 of the Note, dated 20th June 1906, by the Inspector-General of Irrigation.

(11*a*).—The requisite information is given in the accompanying map of Sind.

(11*b*).—The following are the permanent river gauges fixed on the Indus for recording the heights at high and low water seasons :—

	Position of the Indus River gauges.	Date of institution.	Projects for which gauges will be useful.	Remarks.
1.	A gauge about 1,000 feet below the Desert Canal mouth on the Right Bank.	1908 ..	(1) Proposed Khelat Canal.	
2.	A gauge opposite the Desert Canal on the Left Bank.	1909 ..		
3.	A gauge between the Desert Canal and the Unharwah situated opposite mile 34/6 of the Kashmor Bund on the Right Bank.	1909 ..		
4.	A gauge at the mouth of the Unharwah on the Right Bank.	1908 ..	Gauges from 1 to 8 are useful for raising Right Bank Bunds above Sukkur and Left Bank Protective Bund above Rohri.	
5.	A gauge at the new mouth of the Begari Canal (Right Bank).	1913 ..		
6.	A gauge at the mouth of the new feeder to the Sind Canal on the Right Bank.	1909 ..		
7.	A gauge about 800 feet above the mouth of the Rajib Canal on the Right Bank.	1908 ..		
8.	Bukkur gauge on the Bukkur Island situated in the Indus opposite Sukkur.	1848 ..	Gauges from 8 to 11 are useful for— (1) Lloyd Barrage. (2) Right Bank Canal. (3) Eastern Nara Canal. (4) Rohri-Hyderabad Canal.	
9.	Sadh Belo gauge on the Sadh Belo Island situated about 1 mile below the Bukkur Island in the Indus.	1898 ..		The name Sadh Belo has been adopted from the year 1922 as it is the correct name of the island on which the gauge is fixed.
10.	Outfall gauge in the Bunder wall at Sukkur about 3,612 feet below Gao Ghat gauge on the Right Bank.	1903 ..		
11.	Bhagotoro gauge about a mile and a quarter above Laki Railway Station at the mouth of the Aralwah on the Right Bank.	1907 ..		
12.	A gauge 1,000 feet above Jamshora Head Regulator over the Fuleli Canal and about ¼th mile from the river on the Left Bank.	1904 ..	(1) Improvements of Fuleli Canal.	
13.	Kotri gauge at Kotri opposite Sub-divisional Office, Indus River Commission, on the Right Bank.	1863 ..	(1) Kotri Barrage. (2) Improvements of Fuleli Canal.	
14.	Mehrani gauge about 7½ miles below Kotri on the Left Bank.	1904.	(3) Eastern Delta Canal.	
15.	Naro gauge about 13 miles below Kotri on the Left Bank.	1904.		
16.	Hajipur gauge about 2½ miles below Naro gauge on the Left Bank.	1904.		
17.	Hassanali gauge at the mouth of the Hassanali Canal on the Left Bank.	1904.		
18.	Jerruck gauge about 30 miles below Kotri on the Right Bank.	1900 ..	(1) Jerruck Barrage. (2) Baghar re-modelling.	
19.	Uchito gauge at the mouth of the Gharowah on the Right Bank of the Uchito River.	1906 ..	Tidal gauge.	
20.	Chowgazo gauge at the mouth of the Chowgazowah on the Left Bank of the Halderi River.	1906 ..	Do.	

(11*c*).—Nil.

(11*d*).—Discharges of the Indus were observed at Mithankot and a comparison of cold weather gauging at Sukkur and Mithankot

STATEMENT I—*concld.*

below the junction of the Chenab with the Indus gives the following results :—

Name of gauging station.*	Average daily discharge in each month.					
	May 1923.	June 1923.	July 1923	August 1923.	September 1923.	October 1923.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
(1) Mithankot below the junction of the Chenab with the Indus.	2,02,000	3,09,000	4,02,000	5,12,000	*	*
(2) Sukkur ..	1,82,000	2,34,000	3,08,000	4,07,000	2,86,000	75,000
Difference	20,000	75,000	94,000	1,05,000	..	..

Name of gauging Station.	Average daily discharge in each month.					
	November 1923.	December 1923.	January 1924.	February 1924.	March 1924.	April 1924.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
(1) Mithankot below the junction of the Chenab with the Indus.	*	44,000	36,000	51,000	64,000	1,05,000
(2) Sukkur	49,000	40,000	36,000	46,000	56,000	95,000
Difference	..	4,000	..	5,000	8,000	10,000

* Observations from 10th September 1923 to 7th December 1923 are considered to be absolutely unreliable and hence neglected.

Discharges at Mithankot, Sukkur and Kotri were measured daily and silt and velocity observations were taken twice a week.

Discharges were observed with Haskell's current meter type "B", and velocities were taken at 6/10ths of the depth at each station, the result at this depth being taken as the mean velocity of discharge.

Discharges at Ghazi Ghat and Panjnad which were recorded by the Government of the Punjab, were as under :—

Name of gauging station.	Average daily discharge in each month.					
	May 1923.	June 1923.	July 1923.	August 1923.	September 1923.	October 1923.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
Ghazi Ghat (Dera Ghazi Khan).	Not observed.	94,000	2,48,000	Not observed.	1,40,000	57,000
Panjnad	66,000	62,000	1,12,000	2,35,000	96,000	20,000

Name of gauging station.	Average daily discharge in each month.					
	November 1923.	December 1923.	January 1924.	February 1924.	March 1924.	April 1924.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
Ghazi Ghat (Dera Ghazi Khan)...	49,000	31,000	24,000	31,000	40,000	72,000
Panjnad	9,000	11,000	9,000	20,000	15,000	25,000

STATEMENT II.

SIND.

Statement of Gauges at Head Regulators of Canals.

Gauges at the Head Regulators of Canals.	Date of institution.	Projects for which useful.
1. Desert Canal	1877 ..	Proposed Khelat Canal.
2. Unharwah	1885 ..	Right River Embankment above Sukkur.
3. Begari	1879 ..	(1) Right River Embankment above Sukkur. (2) Begari Canal.
4. Sind Canal	1898 ..	Right River Embankment above Sukkur.
5. Sukkur Canal (Rahuja Head)	1875 ..	(1) Right Bank Canal from Sukkur. (2) Lloyd Barrage.
6. Nara, Upper	1862 ..	(1) Left Bank and Eastern Nara System of Canals. (2) Lloyd Barrage.
7. Ghar	1879 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
8. Western Nara, Akil Mouth ..	1904 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
9. Pritchard	1890 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
10. Pinyari	1882 ..	(1) Kotri Barrage. (2) Eastern Delta Canal. (3) Left River Embankment below Kotri.
11. Kalri	1895 ..	(1) Right Bank Canal below Kotri Barrage. (2) Right River Embankment below Kotri.
12. Baghar	1868 ..	(1) Right Bank Canal below Kotri Barrage. (2) Right River Embankment below Kotri. (3) Baghar Canal.
13. Fuleli Canal, Jamshora ..	1889 ..	(1) Kotri Barrage. (2) Fuleli Canal. (3) Left River Embankment.
14. Dad	1897 ..	Left River Embankment below Sukkur.
15. Schar	1901 ..	(1) Schar Canal. (2) Left River Embankment.
16. Mahi	1901 ..	(1) Mahi Canal. (2) Left River Embankment.
17. Masu	1898 ..	(1) Ghotki Canal.
17. Maharo	1898 ..	(2) Left River Embankment.

STATEMENT III.

Table showing Projects in Gujarat with the particulars called for in paragraph 11 of the Note, dated 20th June 1906, by the Inspector General of Irrigation.

FOR WORKS WITHOUT STORAGE.

Serial No.	Project.		River Gauge.		
	Name.	Location.	Position.	Date of erection.	Present procedure of observing river discharges.
			GUJARAT.		
1	Dharoi Reservoir Project and Sabarmati Canal Project.	Mahi Kantha Agency and parts of Baroda territory.	At Hadol about a mile eastwards on the Sabarmati River.	1904-05 ..	In rainy season the rivers are gauged twice a day and for the rest of the year once a day, except the rivers Meshwa, Watrak and Mohor, which are gauged weekly when the discharge is reduced to 15 cusecs.
2	Sabarmati Canal Project.	Daskroi, Sanand and Dholka Talukas of the Ahmedabad District.	At Dudheshwar, ½ mile downstream of Railway Bridge on the Sabarmati River.	1901.	
3	Mahi Canal Project.	Thasra, Anand, Nadiad and Matar Talukas of Kaira District and part of Baroda territory.	At Pali about a mile upstream of the Railway Bridge on the Anand-Godhra Line on the Mahi River.	27th August 1904.	Gauge readings are taken during flood and the surface velocities observed by means of floats; soundings are taken in addition when the river stream is low.
4	Do. ..	Do. ..	At Railway bridge near Lunawada on Panam River, *vide* remark for Serial No. 9 of Statement V.	14th September 1907.	
5	Meshwa Canal Project.	Mehmedabad and Matar Talukas.	At Harsol on Meshwa River.	1905.	
6	(On Mohor River.)	For project that may be contemplated in future.	Near Kapadvanj on Dakor-Kapadvanj Road Bridge on Mohor River.	1907.	
7	(Watrak River.)	Do. ..	Near Ratanpur on Watrak River.	1907.	
8	Tapti River ..	....	At Dholan Pardi.	25th April 1901.	The gauge readings on the rivers Tapti and Narbada are taken for 7 months only (1st November to 31st May) and the river discharges calculated, the surface velocity being observed by means of bottle floats.
9	Narbada River..	....	Gurdeshwar ..	19th November 1905.	

STATEMENT IV.

STATEMENT

Tabular Statement of Projects giving the information required by General

STORAGE WORKS

Serial Number as per Index Map.	Name of Project.	Catchment area in square miles where determined.	Number of rainfall stations within the catchment area.
a	*b*	*c*	*d*
			GUJARAT.
17	Hathmati Reservoir Project	224	*Nil* ..
18	Sabarmati Canal and Dharoi Reservoir Project.	3,400	6 ..
19	Mahi Canal Project (Panam River)	11,840	3 in British Territory .. 7 in Native States ..
20	Khari Reservoir Project	310	2 ..
			DECCAN.
1	Nasik Left Bank Canal, Gangapur Tank ..	140	3 at Trimbak, Vaghra and Girnara.
2	Godavari Canals (Darna Storage)— Unanda Storage at Wajarkhed	98	2 at Achla Fort and Wajarkhed.
	Kadva Storage at Karanjawan	96	2 at Gharosa and Kosimba.
	Aundh Storage at Mukhne	52	1 at Kusegaon ..
3	Darna Right Bank Canal— Karwa Storage at Pimpalgaon	67	2 at Indori and Taki B ..
4	Pravara River Project	47	2 ..
5	Mula Right Bank Canal— Mula Storage at Chas	171	4 (at Harischandragad, Pachnai, Kotul and Chas).
	Mula Storage at Mandvi	538	As above ..
	Mula River at Rahuri (no storage proposed) ..	852	Do. ..
6	Kukari Left Bank Canal— Kukari Storage at Pimpalwandi and Ghod Storage.	288	4 at Junnar, Pur, Malsej and Utur.
7	Mina Canals— Mina Storage at Wadgaon	65	2 at Shewali and Dhamankhed.
8	Ghod Right Bank Canal— Ghod Storage at Nirgudsar	284	4 at Ghod, Asane, Manchar and Anpa.
9	Bhima Canals— Bhima Storage at Kaman	140	3 at Bhimashanker, Wade and Kaman.
10	Mutha Canal Extension Project— Lake Fife	196	4 Musa, Garli, Mutha, Yegra
11	Nira Right Bank Canal— Yelwandi (raised) Storage at Bhatghar ..	128	3 at Bhatghar, Bhordi and Rajgad.
	Nira Storage at Vir	635	5 at Nigurghar, Shirgaon Margasni, Torna Fort and Khed Shivapur.

IV.

paragraph 12 (ii) of the note, dated 20th June 1906, by the Inspector of Irrigation.

AS PROPOSED.

Additional Number of rainfall stations proposed in the catchment area.	Frequency of river discharge observations in the past.	Frequency of river discharge observations in the future.	Remarks.
e	*f*	*g*	*h*
Nil ..	Gauged over the weir daily since 1886.	Daily ..	Observations have been taken since the construction of the weir in 1873-74.
Do. ..	Gauged daily since 1901 ..	Daily since 1904.	
Do. ..	Gauged daily since 1904 ..	Do.	
Do ..	Gauged daily since 1893 ..	Daily ..	Observations are being taken daily in monsoon and weekly at other times since 1893.
Nil ..	Twice a day, 1st June to 31st December.	Same as in column *f*.	
Do. ..	1st June to 31st December	Do. ..	Completed. These are all in connection with increased supply to the Godavari Valley system in Nasik.
Do. ..	Do. ..	Do. ..	
Do. ..	Do. ..	Do. ..	
Do. ..	Do. ..	Do.	
Do. ..	*Nil* ..	Do. ..	Under construction.
Do. ..	Do. ..	*Nil.*	
Do. ..	Whole year ..	Same as in column *f*.	The river gauge is at Tas not far below Mandvi.
Do. ..	1st June to 31st December.	Do. ..	This is the continuation of an old gauge and is useful if the proposal of a weir above Rahuri should be revived.
Do. ..	Do. ..	Do.	
Do. ..	Do. ..	Do. ..	Some of this water may be given to the Kukari Left Bank Canal.
Do. ..	Do. ..	Do. ..	Do. do.
Do. ..	Do. ..	Do.	
Do. ..	Whole year over 30	years available.	
Do. ..	Whole year ..	Same as in column *f*.	Under construction.
....	Do. ..	Do.	

STATEMENT

Serial Number as per Index Map.	Name of Project.	Catchment area in square miles where determined.	Number of rainfall stations within the catchment area.
a	*b*	*c*	*d*
			DECCAN—*concluded.*
12	Krishna Extension Project at Kamargaon ..	346	13, *viz.*, at Malcolmpeth, Panchgani, Dhom, Wai, Sonar, Medha, Bomnoli, Kas, Satara, Rewadi, Koregaon, Helwak and Patan.
13	Gokak Extension Project (Ghatprabha Project)	1,080	15, *viz.*, Ajra, Hukeri Gadhinglaj, Chandgad, Tambulwadi, Punara, Amboli, Hattargi, Benalli, Lankeshwar, Gausa, Waghotra, Rajgoli, Adkur and Patna
14	Ghataprabha Right Bank Canal	410	8, *viz.*, Amboli, Punara, Adkur, Waghotra, Chandgad, Patna, Rajgoli and Tambulwadi.
	Harankashi Storage at Ajra	94	2 at Ajra and Gausa ..
	Ghataprabha Storage at Hadlag	134	3 at Amboli, Punara and Adkur.
	Tamraparni Storage at Rajgoli	206	5 at Waghotra, Patna, Chandgad, Rajgoli, and Tambulwadi.
15	Malaprabha Project— Malaprabha Storage at Asoga	116	2 at Kankumbi and Jamboti
	Malaprabha Storage near Khanapur ..	179	1 at Khanapur ..
16	Wardha Project unknown	....	....
21	Madag Canal Right Bank Extension ..	540	*In the catchment area of the Tank.* 1 at Kalemani.
3	Girna	1,824	....

IV—*concld.*

Additional number of rainfall stations proposed in the catchment area.	Frequency of river discharge observations in the past.	Frequency of river discharge observations in the future.	Remarks.
e	*f*	*g*	*h*
Nil ..	1st June to 31st December.	Same as in column *f*.	
Do. ..	Throughout the year ..	....	
Do. ..	1st June to 31st December.	....	
Do. ..	Do. ..	Same.	
Do. ..	Do. ..	Do. ..	The Ghataprabha storage at Daddi combines these two in one, and although the catchment area is increased to 410 square miles, the river discharge would be about the same as the sum of these.
Do. ..	Do. ..	Do. ..	
Do. ..	....	1st June to 31st December.	At dam site.
		Whole year ..	Below junction of river near Khanapur.
Do. ..	....	....	
Do. ..	....	....	Gauging started in July 1908.
Do. ..	Discharge of the river near Belhur was taken once a day from 1870 to 1893 and then discontinued. The discharge of the waste weir of the existing small tank has been taken once a day whenever it overflowed from 1893.	Discharge to be taken once a day.	Reasons why more rain gauges are not proposed are that the waste weir overflows continuously with an average flood depth of 5 feet for about 4 months in the year, and the discharge is measured.
....	Daily since 1871, with the exception of 4 years of incomplete record.	Daily at Jamda Weir.	Storage at Panjhan, 1,826 square miles catchment. River gauging at Jamda Weir, 2,389 square miles catchment, but the addition is not Ghat catchment.

STATEMENT

Abstract Statement of yearly Discharges of

Serial Number.	Project Number as per map.	Name of river and site.	Catchment area above site.	1904.	1905.	1906.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
						Gujarat
1	18	Sabarmati near Hadol ..	3,400	..	2,870	5,758
2	18	Sabarmati near Dudheshwar ..	4,282	..	..	..
3	17	Hathmati near Himatnagar (Ahmednagar, Idar).	524	..	2,065	5,796
4	20	Khari near Raipur ..	310	..	..	..
5	..	Meshwa near Harsol ..	422	..	2,349	1,856
6	..	Watrak River near Ratanpur ..	611	..	..	..
7	..	Mohor River near road-bridge over Nadiad-Kapadvanj Road.	225	..	..	..
8	19	Mahi near Pali ..	11,840	..	356,309	257,003
9	..	Panam at Railway bridge near Lunawada.	977	..	..	..
						Central India
	..	Narbada at Gurdeshwar ..	42,350	..	25,567	29,271

Note.—The observations made pertain

References to the signs, • etc., which are not given on the

V.

Rivers in the Deccan and Gujarat.

1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
Catchment.									
22,363	120,212	40,482	65,674	3,546	20,087	25,729	18,664	3,848	42,157
27,455	108,176	40,826	51,564	7,557	25,781	37,582	28,415	9,049	44,401
11,241	79,752	28,981	6,989	2,723	4,078	8,444	4,662	1,008	14,267
(3,065-1,194)* =1,871	4,104†	3,150	2,890	634	2,635†	1,524	4,070	984	752
6,900	9,766	10,979	7,442	623	11,942	11,358	18,270	754	3,593
..	5,315	5,503	6,167	1,617	5,800	16,379	40,304‡	1,698	4,491
..	995	2,016	2,072	*Nil.*	815	2,016	2,203	407	1,421
291,866	224,105	369,970	453,239	38,159	335,684	685,046	237,110	42,974	641,154
..	42,400	14,104	31,520	2,037	45,669	139,053‡	16,337	7,833	17,407
Catchment.									
13,632	..	286,527	99,713	154,243	133,803	79,449	66,861	41,265	29,032

to the period 1st May to 30th April following.
same page will be found in the remarks column of the statement. ‡ Doubtful,

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	Catchment area above site.	1904.	1905.	1906
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
11	.	Arunawati at Karwand ..	250	..	Decc. ..	(Deccan 5,042
12	.	Tapti at Dholan Pardi ..	26,015	..	Centr 7,494	al India 8,602
13	..	Aner at Ganpur ..	502	..	Decca 49,145	n (Ghat 16,592
14	..	Tapti at Kathra ..	12,371	..	Cent ..	ral India ..
15	..	Kan at Khandbara ..	34	..	Deccan ..	(Deccan 834
16	.	Waghur at Raipur ..	700	..	..	17,894
17	..	Panjra at Paikheda ..	52	..	Decca ..	n (Ghat ..
18	..	Panjra near Nyhalod ..	802	..	..	..
19	..	Panjra near Dhulia ..	714	..	..	..
20	..	Bori at Purnapada ..	117	704	Deccan 401 ×	(Deccan 1,758
21	..	Masom at Sangameshwar ..	332	..	Dec ..	in (Ghat ..
22	..	Girna at Thengoda ..	413	..	..	..
23	23	Girna at Jamda ..	2,389	32,730	25,492	32,114
24	23	Girna at Rahipuri ..	2,389	..	..	..
25	..	Manad at dam site ..	342	..	Deccan 267	(Deccan 3,321
26	2	Unanda at Wazerkhed ..	68	1,895	Dec 1,781	in (Ghat 2,010
27	2	Kadwa at Karanjwan ..	96	6,001	4,430	4,668
28	..	Odal at Khadakozath ..	38	..	Deccan ..	(Deccan 1,169
29	2	Kadwa at Palkhed ..	314	9,425	Dec 8,978	.nd (Ghat 11,691
30	1 & 2	Godavari at Gangapur ..	145	..	6,313	5,531
31	2	Godavari at Nandur-Madhmeshwar.	1,050		61,371	63,709

V—*contd.*

1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
catchment).									
841	582	2,079	7,000	242	522	4,958	19,732	925	3,504
catchment.									
4,944	..	80,054	29,554	22,276	13,386	14,730	11,631‡	14,570	5,986
catchment).									
2,999	4,567	1,695	4,320	1,155	4,785	20,981‡	17,458	9,552‡	16,066
catchment.									
..	109,445	62,464	236,088	62,858	79,028	208,535	189,114	101,927	233,767
catchment).									
1,710	2,071	1,167	2,405	668	1,750	2,377	2,379	1,113	1,183
8,410	6,881	5,344	3,479	664	2,153	4,319	8,293	4,070	7,371
catchment).									
2,303	2,405	2,635	2,820	861	4,322	2,407	6,848	2,023	5,143
15,203	24,178	36,491	39,300	1,549	30,053	×	21,443	6,024	8,019
14,052	21,526	27,270	31,800	1,852	19,234	×	10,352	3,092	6,729
catchment).									
856	731	1,392	5,697	903	2,976	×	2,875	1,512	24,605‡
catchment).									
8,9[illegible]	5,500	8,952	8,710	3,310	6,771	2,343	15,290	14,832	18,976
..	..	14,436	11,576	12,190	9,888	20,865	35,470	13,703	14,428
16,918	32,421	22,943	42,076	8,745	39,089	34,169	44,717	17,847	×
..	..	..	..	..	..	..	..	..	..
catchment).									
289	582	1,788	2,494	1,597	3,025	2,925	5,642	3,726	8,883
catchment).									
3,167	2,014	3,864	4,944	1,690	2,979	3,227	17,719	3,154	2,257
10,011	8,359	10,437	7,536	3,672	9,602	14,462‡	24,682	7,471	8,025
catchment).									
651	302	1,474	2,179	1,011	1,615	732	5,043	4,378	6,116
catchment).									
36,383	20,214	15,685	19,691	12,173	37,186	26,229	62,888	28,591	22,949
14,590	9,893	10,234	7,918	5,394	17,432	21,879	22,389	12,635	12,299
106,455	103,591	56,806	94,289	21,692	47,773	59,618	109,330	62,051	85,289

× Discharges observed not reliable. ‡Doubtful.

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	Catchment area above site.	1904.	1905.	1906.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
					Deccan	(Ghat
32	2&3	Darna at Nandgaon ..	156	14,255	17,969	21,063
33	2&3	Aundha Nala at Mukhne ..	52	3,568	3,424	6,786
34	2&3	Karwa at Pimpalgaon ..	67	1,991	3,274	3,214
35	4	Pravara at Ojhar Weir ..	621	17,320	20,861	26,050
36	5	Mula at Chikalthan ..	581	..	..	28,509
37	5	Mula at Rahuri ..	900	31,544	19,019	32,290
38	6	Kukari at Edgaon ..	265	24,697	12,078	11,171
39	7	Mina at Wadgaon ..	78	5,010	4,408	5,502
40	8	Ghod at Nirgudsar ..	284	..	..	19,477
41	..	Ghod at Kathapur ..	427	..	..	..
42	6	Kukari at Shirapur ..	464	22,293	13,441	13,467
43	9	Bhima at Chas-kaman ..	140	..	..	9,176
44	10	Lake Fife at Khadakvasla ..	196		Trans	ferred to
45	11	Yetwandi at Bhatghar (Lake Whiting).	128		Trans	ferred to
					Deccan	(Deccan
46	..	Seena at Hatwalan ..	446	1,821	827	3,281
					Deccan	(Ghat
47	11	Gunjawni at Mohori ..	183	6,577	14,219	13,301
48	..	Nira at Apti (formerly called Nira at Natambi).	59	..	..	..
49	11	Nira at Karanja ..	86	12,015	13,879	12,276
50	11	Nira at Vir ..	700	70,554	61,603	59,023
51	12	Krishna at Dhom ..	84	..	..	..
					Deccan	(Deccan
52	12	Yerla at Yeralwadi ..	274	..	130	2,330
					Deccan	(Ghat
53	12	Koyna at Helwak ..	359	121,857	117,400	118,012

V—*contd.*

1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
catchme	nt).								
36,187	17,378	13,773	Figures	from 191	0 transfe	rred to S	tatement V	I.	..
10,898	5,313	14,071	11,955	2,691	13,521	4,285	9,038	3,253	3,703
4,880	4,945	4,306	8,632	2,403	6,172	7,558	14,701	5,976	6,868
27,387	38,767	36,011	33,033	17,708	26,927	29,817	47,085	28,012	40,958
39,601‡	40,215	34,156	55,049‡	27,959‡	45,466‡	56,405	70,029‡	47,381‡	49,586‡
36,879‡	44,090	42,171	49,370	24,564‡	35,865‡	63,688‡	59,286‡	41,269‡	57,028‡
29,007	24,742	24,255	26,470	19,240	22,334	48,499‡	41,942	26,574	40,777
7,162	2,861	4,260	6,304	5,548	10,157	11,042	17,710‡	9,105‡	14,814
39,610	47,852	42,006	53,493	17,948	57,661	47,624	45,700	29,744	41,479
..	..	..	..	..	..	..	..	..	..
28,943	32,456	32,023	35,123	24,073	31,733	41,334	95,228	64,562	84,854‡
18,155	24,064	13,360	31,054	21,203	37,500	50,444	31 006	16,718	18,04[illegible]
Statemen	t VI.								
Statemen	t VI.								
catchme	nt).								
4,724	1,369	3,172	10,304	2,913	1,489	7,653	6,855	4,603	12,503
catchme	nt).								
28,151	25,039	21,851	27,081	7,704	21,449	24,506	31,344	21,549	12,704
..	..	..	..	..	..	..	..	..	..
20,525	20,363	18,806	25,063	9,968	15,583	29,324	25,823	14,411	23,390
102,380	103,998	83,302	90,755	51,956	81,890	82,230	127,661	91,370	63,950
28,110	26,160	21,232	44,183	14,077	35,855	29,721	45,737	31,189	17,477
catchme	nt).								
8,479	4,621	5,423	6,078	3,130	4,193	4,095	3,236	3,340	6,094
catchme	nt).								
178,655	188,795	177,940	167,482	108,226	76,623	152,201	236,457	134,472	139,684

‡ Doubtful

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	Catchment area above site.	1904.	1905.	1906.
			Sq. miles.	M. c. ft.	M. c. ft. Deccan	M. c. ft. (Ghat
54	..	Krishna at Khodsi Weir ..	1,284	33,708	35,990	67,822
55	..	Krishna at Kusnal ..	7,200	..	..	..
56	13	Harankashi at Ajra ..	94	31,100	24,974	32,990
57	13 & 14	Ghataprabha at Hadlag ..	134	40,005	21,718	30,021
58	13 & 14	Ghataprabha at Gokak or Dhupdal Weir.	††1,080	93,804	53,381	80,587
59	13&14	Tamraparni at Rajgoli ..	206	28,100	13,804	21,070
60	14	Markandya at Shirur ..	165	..	1,044	4,138
61	15	Malaprabha at Bhutowadi ..	126	..	..	..
62	15	Malaprabha at Khanapur ..	170	..	..	..
63	16	Wardha at Banwasi ..	444	..	..	..
64	22	Dharma near Shringeriwad ..	60	..	..	..
65	21	Kumudvati River, Bellur village, and Madag Tank.**	540	..	..	..

V—*contd.*

1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
catchment).									
82,745	90,018	71,178	72,720	38,082	56,499	73,083	100,834	96,489	73,449
..	..	..	..	..	..	..	..	..	..
42,172	48,862	37,734	41,899	38,545	51,267	33,844	64,041	41,072	52,347
50,289	50,538	38,034	35,400	32,521	57,458	37,016	67,050	33,928	37,814
153,913	155,933	107,750	100,267	84,545	172,750	92,058	217,591	313,252	134,245
36,614	37,886	27,097	25,018	21,451	51,954	20,677	74,086	30,173	32,714
8,398	8,135	4,052	3,364	2,007	15,307	3,873	×	5,891	5,257
30,181	21,657	15,065	13,942	11,727	26,707	14,238	29,677	14,580	14,304
32,293	24,407	18,884	15,755	10,823	33,345	15,147	44,421	17,479	19,779
..	47,661	30,314	33,744	31,068	62,678	41,406	55,954	22,849	44,819
..	1,670	2,039	1,432	916	3,746	1,125	5,402	1,624	1,667
..	18,006	15,149	20,424	17,711	24,828	20,061	23,300	8,866	11,044

× Discharges observed not reliable.

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft. (Gujarat
1	18	Sabarmati near Hadol ..	49,622	8,984	27,265	16,349	26,717
2	18	Sabarmati near Dudheshwar ..	76,754	16,133	37,144	19,510	20,140*
3	17	Hathmati near Himatnagar (Ahmednagar, Idar).	16,903	4,996	19,076	6,431	9,356
4	20	Khari near Raipur ..	3,908	1,056	5,119	2,972	2,854
5	..	Meshwa near Harsol ..	5,062	2,271	9,614	3,595	5,564
6	..	Watrak River near Ratanpur..	11,518	2,897	11,381	16,830	25,010
7	..	Mohor River near road-bridge over Nadiad-Kapadvanj Road.	4,987	94	3,275	1,199	3,053
8	19	Mahi near Pali ..	801,221	71,824	592,389	281,382	286,384

Note.—The observations made pertain to the

† Doubtful.
‡ The rainfall recorded is correct
§ The rainfall recorded is correct
¶ The run-off is from calculations

V —*contd.*

1st January 1922 to 30th April 1922.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-24.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
catchment).							
387	21,879	6,615	Mount Abu 31·19	‡31·19	¶0·027	1	The river was gauged from 1st May 1923 to 30th April 1924. *The excessive loss in discharge between Hadol and Dudheshwar is probably due to heavy leakage in the boulder formation of the river channel passing from the submontane tract.
718	32,132	8,681	Mount Abu 31·19 Hadol 10·85. Idar 12·59. Himatnagar 10·94. Sadra 9·66. Ahmedabad 11·44.	‡14·44	¶0·06	2	
408	6,037	467	Idar 12·59, Himatnagar 10·94.	§11·76	¶0·03	3	The river was gauged from 22nd July 1923 to 15th Nov. 1923.
539	990	174	Himatnagar 10·94, Prantij 11·82.	§11·38	¶0·02	4	The river was gauged from 22nd June to 24th June and 9th and 10th July and from 18th July to 14th Oct. 1923. *Out of this 534 M. C. ft. were run from the Bokh reservoir and 660 from the Hathmati Canal. †This is purely from its catchment exclusive of supplies from other sources such as the Bokh reservoir, Bhujwa Nalla and Hathmati Canal tail.
170	2,070	50·1	Modasa 13·34 Mohanpur 11·57.	§12·45	¶0·04	5	The river was gauged from 1st May 1923 to 29th Febry. 1924.
130	6,040	†6,445	Modasa 14·98 Ratanpur 13·65.	§14·31	¶0·32	6	The river was gauged from 26th July to 31st December 1923.
..	781	†1,089	Kapadvanj 16·53	§16·53	¶0·12	7	The river was gauged from 13th July 1923 to 30th Nov. 1923.
1,482	209,488	178,904	Sewalia 14·65 Palasinor 13·71. Lunawada 25·40. Sant Rampur 32·09, Neemuch 27·19, Jhalod 25·62, Dohad 16·78, Devgad Baria 16·48. Godhra 21·27.	‡21·47	¶0·30	8	The river was gauged from 20th July 1923 to 31st March 1924.

period 1st May to 30th April following.

for only a portion of the catchment.
for the whole catchment.
based on the average rainfall.

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. f .	M. c. ft.
9	..	*Panam at Railway bridge near Lunawada.	41,577	8,783	58,893	82,235	37,036
							(Cent ral India
10	..	Narbada at Gurdeshwar ..	94,670	60,301	24,001	28,424	37,449
						Deccan	(Deccan
11	..	Arunawati at Karwand ..	206§	243	2,334	2,568	4,156§
						(Cent ral Indi n	
12	..	Tapti at Dholan Pardi ..	97,994	18,115	5,250	4,452	3,804
						Dec n (Ghat	
13	..	Aner at Ganpur ..	12,599	928	6,301	3,931	4,971
						(Cent ral India	
14	..	Tapti at Kathora ..	219,103	20,313	77,137	42,976	123,882
						Deccan	(Deccan
15	..	Kan at Khandbara ..	4,486§	2,060§	3,576	772	3,375§
16	..	Waghur at Raipur ..	6,459	3,501	10,037	4,234	16,593
						Decca n (Ghat	
17	..	Panjra at Pankheda ..	5,102	1,273	6,460	1,601	5,078
18	..	Panjra near Nyhalod ..	7,070	1,580	16,502	1,933	8,135
19	..	Panjra near Dhulia ..	14,720	1,718	10,501	1,007	6,320
						Deccan	(Deccan
20	..	Bori at Purmapada ..	4,190	..	1,242	253	2,179
						Deccan	(Ghat
21	..	Mosam at Sangameshwar ..	21,974	2,034	26,169	2,059	4,756
22	..	Girna at Thengoda ..	24,154	4,932	19,166	3,176	8,571

† The rainfall recorded is correct for the whole catchment.
‡ The run-off is from calculations based on the average rainfall.
§ Doubtful.
* During the year under review fresh cross and longitudinal sections were taken and as there were [illegible] discharges in question.

V—*contd.*

1st January 1922 to 30th April 1923.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-24.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
111 catchment).	13,861	4,636	Lunawada 16·48 Devgad Baria 25·40.	†20·94	†0·10	9	The river was gauged from 15th July 1923 to 31st Oct. 1923. *From the year 1922 the discharge of the Panam river is measured at this site and not near Ambli Muvada as in the previous years.
20,804 catchment).	62,715	83,940	....	..	..	10	It has not been possible to obtain the rainfall records for the rather extensive area.
.. catchment).	1,548	1,397	Karwand 18 94 ..	18·94	·13	11	
4,013 catchment).	7,108	6,977	....	..	..	12	It has not been possible to obtain the rainfall records for the rather extensive area.
302 catchment).	6,923	3,493*	Chopda 17·35 ..	17·35	·17	13	
2,293 catchment).	07,402	81,587	....	..	..	14	It has not been possible to obtain the rainfall records for the rather extensive area.
9	4,028	10,829	Amli 38·67, Chopala 42·95.	40·81	..	15	
1,975 catchment).	8,110	5,115	Raipur 21·40, Jamner 19·38.	20·39	·15	16	
91	8,309	5,523	Pimpalner 25·48.	25·48	..	17	
410	8,094	11,041·39	Nyhalod 20·67, Ambli 38·77 Chaupada 42·95, Dhulia 24·14.	31·63	0·19	18	Discharge at Nimkhedi weir observed from 1st May 1923 to 30th April 1924.
275 catchment).	5,389	8176·95	Dhulia 24·14, Ambli 38·77, Chowpala 42·95.	35·28	0·14	19	Discharge at Mahindal weir observed from 1st May 1923 to 30th April 1924.
.. catchment).	1,378	1,467	Purmapada 18·51.	18·51	·28	20	Figures for the years 1897 to 1902 are also available. *Several days omitted so that this figure is too low.
..	5,540	12,242	Nampur 14·65, Taharatad 17·43, Visapur 33·31.	21·80	..	21	
..	12,827	11,808	Chankapur 31·07, Hatgad 84·03. Kalwan 20·23, Thengoda 13·94.	37·32	·33	22	

appreciable changes new tables of areas and wetted perimeters were prepared and utilised in calculating

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						Deccan (Ghat	
23	23	Girna at Jamda ..	30,803	6,042	57,856	9,661	20,416
24	23	Girna at Rahipuri ..	28,166	6,235	58,899	9,706	42,885†
						Deccan	(Deccan
25	..	Manad at dam site ..	2,639	366	4,782	396	7,177
						Deccan	(Ghat
26	2	Unanda at Wazarkhed ..	3,554	875	9,809*	517	1,674
27	2	Kadwa at Karanjwan ..	7,683	2,992	9,730	2,496	5,369
						Deccan	(Deccan
28	.. ..	Odul at Khadakozathi ..	1,000	290	2,826	191	980*
						Deccan	(Ghat
29	2	Kadwa at Palkhed ..	36,908	10,513	38,278	7,335	24,125
30	1 & 2	Godavari at Gangapur ..	14,708	6,182	17,160	7,078	11,677

* Doubtful.

† During the year under review fresh cross and longitudinal tables of areas and wetted perimeters were prepared

V—*contd.*

1st January 1922 to 30th April 1922.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-24.	Proportion of run-off to rainfall.	Serial No.	Remarks
M. c. ft.	M. c. ft.			Inches.			
catchment).							
651	24,796	25,330·8	Hatgad 83·66, Lakhamapur 14·21, Chankapur 33·89, Kalwan 20·19, Satana 16·58, Taharabad 17·43, Nampur 14·65.	23·77	0·1020	23	The discharge is served from June 1923 to Oct. 1923.
..	24,076	25672·8	Umbrane 23·08, Thengoda 14·27, Malegaon Irrigation bungalow 15·04, Nandurtek 12·56, Jamda 19·73.	23·77	0·1946	24	Do.
catchment).							
88	7,910	3,384	Nandgaon 16·21, Naydongri 4·44.	10·32	·41	25	
catchment).							
..	2,169	4,400†	Wazarkhed 40·67, Achala Fort 42·71, Karanjkhed 60·55, Wani 32·45.	44·10	..	26	
..	6,861	8,175†	Charosa 74·25, Koshimba 39·45, Bhanwad 75·09, Nalwari 35·04.	55·96	..	27	
catchment).							
..	97	590	No rain gauge station.	..	..	28	
catchment).							
..	19,053	16,517	Inspection bungalows Waghad 56·11, Subdit. Quarters Waghad 46·09, Chachadgaon 55·33, Charosa 74·25 Achala Fort 42·72, Kashimba 39·45, Wazarkhed 40·67, Palkhed 17·89, Dindori 23·24, Bhanwad 75·09, Jalkheda 91·92, Karanjkhed 60·55, Nalwadi, 35·04, Pophalwadi 59·70, Sadral 84·35, Wani 32·45, Rasegaon 33·95.	51·11	·44	29	Figures from 1895 to 1903 are also available.
10	14,644	18,698†	Waghere 30·34, Girnare 30·97, Trimbak 68·08.	43·13	..	30	

sections were taken and as there were appreciable changes new and utilised in calculating the discharges in question.

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
31	2	Godavari at Nandur-Madhmeshwar.	64,071	27,633	106,046	49,021	60,012
32	2 & 3	Darna at Nandgaon ..	..	..	..	..	..
33	2 & 3	Aundha Nala at Mukhne ..	3,892	1,622	4,008‡	3,985	3,743
34	2 & 3	Karwa at Pimpalgaon ..	3,570	771	4,149‡	2,107	2,708
35	4	Pravara at Ojhar Weir ..	48,354	13,655	40,506	30,504	19,360

× Discharges observed not reliable.

†During the year under review fresh cross and longitudinal sections were taken and as there were the discharges in question.

‡ Doubtful.

* Information of rainfall not available.

V—*contd.*

1st January 1922 to 30th April 1922.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-2 .	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.					
..	68,266	72,013	Nasik 28·00, Deolali 17.00, Kherwadi 13·00, Girnara 31·00, Waghere 129·00, Palkhed 19·00, Wazarkhed 41·00, Achala Fort 43·00, Waghad 58·00, Ozar Tambat 23·00, Ambewadi 160·00, Koshimba 39·00, Indore 48·00, Kusegaon 83·00, Chachadgaon 56·00, Pimpalgaon 15·00 Niphad 17·00, Dindori 25·00, Taked 35·00, Igatpuri 107·00, Nalwadi 35·00, Bhanwad 75·00, Wani 32·00, Rasegaon 34·00, Jalkheda 92·00, Sadral 84·00, Pophalwadi 60·00 Ghoti Ry. Station 80·00, Dhamangaon 39·00, Walvihir 85·00, Jamundi 181·00, Waghere 30·00, Trimbak 68·00, Karanjkhed 61·00, Darnadam, 35·00, Charosa 74·00.	57·00	·33	31	
..	..	..	....	..	..	32	
..	×	7,860†	Kusegaon 82·96 ..	82·96	·78	33	
..	3,615	3,222†	Taked 34·97 Indore 47·53, Dhamangaon 39·21.	40·57	·51	34	
..	31,198‡	31,359	Akola 19·00, Sangamner 10·00 Ghatghar bungalow 221·73 Ghatghar on hill 263·59, Ghatghar village 215·00 Bhandardara 113 00, Samrad* Udana 316·61, Panjre,* Sulpawari,* Kalsubai.*	47·54	·46	35	Figures are also available from 1882 to 1903. The proportion 46 per cent. has been arrived at by assigning to the set of 9 rain gauge stations within the catchment of Bhandardara its area of influence of 47 square miles and to the three rain gauges between Ghatghar and Bhandardara the area of influence of (621–47)=574 square miles; the total volume thus working out to 68,582 m. c. ft.

appreciable changes, new tables of areas and wetted perimeters were prepared and utilised in calculating

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
							Deccan (Ghat
36	5	Mula at Chikalthan ..	30,194	9,447	35,053	17,307	24,091
37	5	Mula at Rahuri ..	34,858	13,748	48,288	21,511	40,304
38	6	Kukari at Edgaon ..	30,248	11,763	31,215	13,675	20,066
39	7	Mina at Wadgaon ..	6,535	1,999	7,108	3,450	7,111
40	8	Ghod at Nirgudsar ..	18,125	7,221	27,562	16,804	22,792‡
41	..	Ghod at Kathapur ..	..	..	..	..	..
42	6	Kukari at Shirapur ..	29,872‡	9,114‡	42,425	33,603	24,199
43	9	Bhima at Ghas-kaman ..	14,341	5,633	18,182	9,275	12,871
44	10	Lake Fife at Khadakvasla ..	..	..	..	Transferred to	
45	11	Yelwandi at Bhatghar (Lake Whiting).	..	..	..	..	..
						Deccan	(Deccan
46	..	Seena at Hatwalan ..	4,152	131	5,858	755	1,638
						Deccan	(Ghat
47	11	Gunjawni at Mohori ..	24,716	7,425	23,917	23,905	20,410
48	..	Nira at Apti (formerly called Nira at Natambi).	..	..	..	20,427	20,417
49	11	Nira at Karanja ..	24,229	8,542	31,886‡	21,876	21,344

† During the year under review fresh cross and longitudinal sections were taken and as there in calculating the discharges in question

‡ Doubtful.

V—*contd.*

1st January 1922 to 30th April 1922	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-24.	Proportion of run-off to rain fall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
catchment).							
..	28,398	27,855†	Pachnai, 209·21, Kotul 24·34, Chas 19·96, Harischandragad 158·71. Brahmanpada 29·06.	88·26	·23	36	
449	64,106	33,777†	Rahuri 9·052, Pachnai 209·21, Kotul 24·34, Chas 19·96, Brahmanpada 29·06. Harischandragad 158·71.	75·15	·21	37	
..	23,483	22,020	Junnar 22·40, Otur 14·89, Pur 90·92. Malsej 101·68.	57·47	·64	38	
..	5,158	10,053	Shivali 84·02. Dhamankhed 20·81.	52·71	..	39	
..	19,080	20,553	Aupe 151·46, Asne 84·03, Manchar 22·08, Ghoda 22·81.	70·39	·44	40	
17	124	664	....	..	..	41	
3	32,530	33,471	Junnar 22·40 Otur 14·89, Pur 90·92, Malsej 101·68.	57·47	·54	42	Gauging started in December 1902.
..	12,967	12,598	Shankar 178·75 Chas 17·46, Wada 46·52.	80·91	·48	43	
Statement VI.	..	..	....	..	..	44	
..	..	..	....	..	..	45	
Catchment).							
..	2,843	2,382†	Ahmednagar Ripon Hospital 16·72. Kapurwadi, 17·30	17·01	·13	46	
Catchment).							
52	28,016	20,970	Khed-Shivapur 23·37, Margasne 27·52. Rajgad 113·46, Torna 49·53.	53·47	·92	47	
13	22,017	..	....	..	..	48	Observations stopped since 1923.
14‡	21,933‡	22,369	Nigurghar 143·18 Shirgaon 269·80 Apti 75·28 Hirdushi 157·66.	161·48	·69	49	

Were appreciable changes, new tables of areas and wetted perimeters were prepared and utilised

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						Deccan (Ghat	
50	11	Nira at Vir ..	85,122	27,810	96,745	84,808	73,84
51	12	Krishna at Dhom ..	15,926	6,794	15,095	14,847	15,376
52	12	Yerla at Yeralwadi ..	2,301	1,205	2,898	Deccan 2,949	(Deccan 3,949
						Deccan (Ghat	
53	12	Koyna at Helwak ..	130,530	59,212	147,016	132,005	134,397
54	..	Krishna at Khodsi weir ..	79,815	23,138	74,698	..	57,314
55	..	Krishna at Kusual ..	..	186,020	509,502	452,823	286,017
56	13	Harankashi at Ajra ..	31,858	20,023	32,842	31,144	34,334
57	13 & 14	Ghataprabha at Hading ..	37,013	20,019	30,830	29,195	34,450

† During the year under review fresh cross and longitudinal sections were taken and as there calculating the discharges in question.

V—*contd.*

1st January 1922 to 30th April 1922.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge station within the catchment and rainfall in inches for 1923-24.	Total average rainfall for 1923-24.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.					
catchment).							
..	90,755	80,926	Bhordi 186·74, Terna 59·53, Rajgad 113·46, Bhatghar bungalow 28·09, Bhatghar village 26·07, Shirgaon 269·80, Nigurghar 143·18, Khed Shivapur 23·37, Margasne 35·42, Purandhar 8·03, Vir 11·22, Aptl 75·28. Hirdushi 157·65. Waroti 186·00, Bhutanda 173·50, Chandavna 174·50, Kamra 111·00, Mhashivli 85·00, Kondgaon 228·00, Sandaswadi 92·50.	109·46	·45	50	Figures for 1888 to 1903 with exception for 1900 are also available.
84	16,905	17,297	Dhom 27·66 ..	27·66	..	51	
catchment).							
118	11,456	4,244	Khatgun 12·19, Nehr 11·18, Vaduj 7·88.	10·42	..	52	Gauging started in July 1905. The site is below Nehr tank at Khadgaon weir.
catchment).							
124	171,403	179,268	Helwak 247·27, Malcom Peth 239·15, Bamnoli 95 59, Sonat 104·97.	171·74	..	53	Gauging started in in July 1902.
345	91,701	57,545	Mahableshwar 239·62, Bamnoli 95·59 Rewadi 15·13, Satara 22·63, Kas 120·00. Koregaon 16·59, Medha 56·26, Panchgani 57·64, Wai 15·26, Dhom 27·66.	66·638	0·28	54	The run-off is ascertained from the actually measured discharges. The figures of rainfall are for the whole catchment.
1,278	563,873	726,146†	....	..	..	55	It has not been possible to obtain the rainfall records for the rather extensive area.
148	39,069	48,906	Ajra 98·92, Gawasa 108·10, Amboli 275·47.	160·86	..	56	
255	41,618	52,907	Adkur 81·00, Pundra 231·09.	156·04	..	57	Figures are also available from 1887 to 1891 and also for 1903.

were appreciable changes, new tables of areas and wetted perimeters were prepared and utilised in

STATEMENT

Serial Number.	Project Number as per map.	Name of river and site.	1917.	1918.	1919.	1920.	1921.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft. Dec	M. c. ft. an (Ghat
58	13 & 14	Ghataprabha at Gokak or Dhupdal Weir.	119,043	60,896	99,345	92,537	111,002
59	13 & 14	Tamraparni at Rajgoli ..	26,828	12,306	24,358	23,154	29,213
60	14	Markandya at Shirur ..	4,223	998	3,096	4,477	5,085
61	15	Malaprabha at Bhutewadi ..	10,327	3,807	10,397	11,726	12,036
62	15	Malaprabha at Khanapur ..	16,658	5,975	15,545	16,933	18,883
63	16	Wardha at Banwasi ..	30,223	21,053	38,062	33,102	35,647
64	22	Dharma near Shringeriwad ..	1,285	376	1,288	871	1,277
65	21	Kumudvati River, Bellur village and Madag Tank.**	11,007	6,025	9,373	9,981	8,651

† During the year under review fresh cross and longitudinal sections were taken and as there calculating the discharges in question.

V—*concld.*

1st January 1922 to 30th April 1922.	1st May 1922 to 30th April 1923.	1923-24.	Rain gauge stations within the catchment and rainfall in inches for 1922-23.	Total average rainfall for 1923-24.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.					
catchment.							
389	118,589	107,745	Amboli 270·83, Pundra 232·02, Chandgad 131·82, Ajra 102·14, Tambulwadi 136·38, Gad-Hinglaz 44·19, Bonalli 20·39, Sankeshwar 21·98, Hukeri 24·89, Hattargi 18·57.	101·92	0·66	58	†† Length of catchment area is 70 miles. Figures for 1891 to 1903 are also available.
208	30,320	42,130	Wagotra 229·68, Patne 138·65, Chandgad 136·44, Rajgoli 38·90, Tambulwadi 135·08.	135·87	·65	59	Gauging started in August 1902.
110	5,628	0,957†	Bonali 28·51, Turmuri 62·80, Belgaum 52·01.	47·77	·38	60	
60	12,725	22,013	Kumkumbi 227·25, Jamboti 148·79.	188·02	·42	61	
145	19,031	34,610†	Kumkumbi 227·25, Jamboti 148·79, Khanapur 85·46.	153·83	·54	62	
121	28,053	07,821	Sirsi 139·07, Siddapur 150·38.	140·22	·44	63	Gauging started in 1908.
..	1,527	4,477	Yekambi 121·35	121·35	0·20	64	Figures for the years 1882 to 1886 are also available. The catchment area is 10 miles in length.
146	0,454	20,072	Kalmani 54·55 ..	54·55	0·31	65	Figures are also available from 1869 to 1894. **Length of catchment area of Madag tank is 46 miles.

were appreciable changes, new tables of areas and wetted perimeters were prepared and utilized in

STATEMENT

Observed Annual Discharges

The results are obtained from the observations on the quantities of
the years noted. The proportion the discharge obtained bears
the number of rain gauge stations are far too few to
The object of the return is to show the supply of
area in situations similar to

Serial Number.	Name of Tank.	Contents of the Tank.	Catchment area.	Length of Catchment area.	1904.
		M. c. ft.	Sq. miles.	Miles.	M. c. ft.
1	Muvalia Tank ..	237	30	10	..
2	Wangroli Tank ..	212	13	6	The tank construc no obser could be
3	Salat Tank ..	135	12·5	8	..
4	Savli Tank ..	172	11	4	..
5	Futelao Tank ..	56	7	4	..
6	Nagrama Tank ..	97	1·5	1½	..
7	Tranja Tank ..	80	*Nil.*	*Nil.*	..
8	Mhaswad Tank ..	2,001	480	35	1,598
9	Lake Fife at Lhadak-vasla.	3,955	196	24	..
10	Ekruk Tank ..	2,616†	159	15½	2,016*
11	Lake Beale ..	7,763	156	25	..
12	Lake Whiting on Yelwandi at Bhatghar.	5,313	128	24	21,837*
13	Chankapur Tank ..	1,548	100	10½	..
14	Ashti Tank ..	1,410	92	14½	430
15	Nehr Tank ..	490	59·5	10	332
16	Mainl Tank ..	115	52	8½	524
17	Bhatodi Tank ..	154	44	30	64
18	Dambal Tank ..	114	43	7½	61

Note.—The observations made pertain to
N.B.—During the years marked
× Discharge observed
‡ The discharge

VI.

from Catchment Areas.

water stored in the tanks and discharged over their waste weirs during
to the recorded rainfall is not given in this statement, because
admit of this calculation being made accurately.
water that may be expected from a given catchment
those under observation.

Run-off or discharge observed.

1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
GUJARAT.								
..	577*	212	337*	749*	1,189*	*Nil.*	243*	1,352*
was under tion and vations taken.	481*	170	350*	75	141	*Nil.*	323*	348*
..	..	..	..	..	125	*Nil.*	150	372*
..	..	..	..	45	85	*Nil.*	161*	219*
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	97	28
..	..	..	..	..	..	..	74	48
DECCAN.								
1,149	2,647	2,631	4,185*	5,324*	13,939*	3,936*	1,278	2,143
..	41,207*	72,086*	67,355*	62,324*	53,056*	35,976*	52,264*	54,800*
281	2,029	1,564	1,597	3,811*	×	769	606	1,238
..	..	..	..	..	24,054*	16,358*	28,019*	41,044*
26,460*	30,601*	43,789*	40,086*	35,997*	38,185*	21,073*	34,656*	35,229*
..	..	..	..	..	..	2,288*	9,845*	9,455*
162	1,468	268	943	808	4,545*	635	65	361
58	398	1,489	802	840	1,724	1,863	1,305	1,137
50	1,118	1,839	3,429	2,158	3,214	319	122	676
55	309*	1,199*	288*	3,139*	2,320*	42	13	224*
46	148*	173	56	112	239	8	2.12	95

the period 1st May to 30th April following.
(*) the tank overflowed.
not reliable.
figure is doubtful.

STATEMENT

Serial Number	Name of Tank.	Contents of the Tank.	Catchment area.	Length of Catchment area.	1904.
		M. c. ft.	Sq. Miles.	Miles.	M. c. ft.
19	Mukti Tank ..	(a) 324	34·20	10	311
20	Waghad Tank ..	606	29	6½	2,868*
21	Pathri Tank ..	407	27·50	9½	..
22	Muchkundi Tank ..	705	26	7	34
23	Shirsuphal Tank ..	365	23·50	6½	105
24	Bhadalwadi Tank ..	222	23	7½	113
25	Asundi Tank ..	74	23	3½	90
26	Parsul Tank ..	119	17·75	9½	120
27	Wadshivne Tank ..	203	14·5	5	..
28	Mhaswa Tank ..	172	13·40	5	333*
29	Medleri Tank ..	58	11	4½	113*
30	Talwada Tank ..	116	10·50	6	*Nil.*
31	Shedbal Tank ..	(b) 29	7·81	3½	..
32	Koregaon Tank ..	84	7	4½	112*
33	Hartala Tank ..	135	6·80	2½	21
34	Khirdi Sathe Tank ..	91	6·45	2½	91
35	Mavinkop Tank ..	48	6·25	3½	..
36	Gadikeri Tank ..	34	4·68	2½	..
37	Killedkeri Tank ..	22	1·56	1*	..

Note.—The observations made pertain to
N.B.—During the years marked
× Discharge observed
‡The discharge

VI—*contd.*

Run-off or discharge observed—*contd.*

1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
DECCAN—*concld.*								
130	1,474*	146	59	181	1,051*	3	73	123
1,653*	2,087*	3,199*	2,817*	2,850*	1,942*	1,894*	2,868*	2,812*
..	..	..	515*	488*	950*	383*	34	240
70	78	..	..	191	60	47	..	..
46	306	113	75	161	198	24	32	47
97	600*‡	55	207	125	191	132	84	91
60	122	115	31	40	Not observed.	7	164	183
32	185*	116	41	137	405*	48	64	340*
..	..	..	97	357*	55	24	24	95
129	649*	703*	138	696*	309*	*Nil.*	104	×
34	95	85*	56	24	501	10	61	42
55	4	3	*Nil.*	*Nil.*	56	9	70	76
..	..	..	..	..	..	×	×	×
8	215*	73	61	74	238*	94	19	38
Nil.	41	71	40	48	94	*Nil.*	17	79
8	39	27	13	19	127*	39	26	47
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	1	322	25
..	..	..	..	..	..	14	115	23

the period 1st May to 30th April following.
(*) the tank overflowed.
not reliable.
figure is doubtful.

STATEMENT

Observed Annual Discharges

The results are obtained from the observations on the quantities of
the years noted. The proportion the discharge obtained bears
the number of rain gauge stations are far too few to
The object of the return is to show the supply of
area in situations similar to

Serial Number.	Name of Tank.	Run-off or				
		1914.	1915.	1916.	1917.	1918.
		M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
1	Muvalia Tank ..	135	105	750*	3,535*	40
2	Wangroli Tank ..	119	2	89	481*	3
3	Salat Tank ..	188*	*Nil.*	*Nil.*	429*	1
4	Savli Tank ..	72	37	56	137	1
5	Futelao Tank ..	....	....	....	112	1
6	Nagrama Tank ..	*Nil.*	*Nil.*	*Nil.*	23	*Nil.*
7	Tranja Tank ..	*Nil.*	*Nil.*	*Nil.*	64	*Nil.*
8	Mhaswad Tank ..	2,288	4,039*	×*	2,010*	388
9	Lake Fife at Khadakwasla	78,821*	38,622*	35,483*	48,845*	17,357*
10	Ekruk Tank ..	2,208	3,658*	6,117*	3,893*	253
11	Lake Beale ..	30,559*	19,158*	21,893*	34,113*	9,663*
12	Lake Whiting on Yelwandi at Bhatghar.	45,412*	26,781*	23,812*	42,512*	19,925*
13	Chankapur Tank ..	8,634*	3,797*	5,110*	7,392*	1,346*
14	Ashti Tank ..	790	1,684*	1,614*	1,649*	284
15	Nehr Tank ..	1,085	1,243	1,719*	468	415
16	Maini Tank ..	3,041	1,331	6,956*	2,029*	650*
17	Bhatodi Tank ..	1,452*	1,524*	2,243*	1,844*	..
18	Dambal Tank ..	18	223*	426*	497*	226*

Note.—The observations made pertain to
N.B.—During the years marked
× Discharge observed
* The discharge

VI—*contd.*

from Catchment Areas—contd.

water stored in the tanks and discharged over their waste weirs during
to the recorded rainfall is not given in this statement, because
admit of this calculation being made accurately.
water that may be expected from a given catchment
those under observation—*contd.*

discharge observed—*contd.*					Serial Number.	Remarks.
1919.	1920.	1921.	1922-23.	1923-24.		
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.		
GUJARAT—*concld.*						
3,018*	61	3,643*	304*	142	1	Catchment area is hilly, valleys or low lands being cultivated. The tank did not overflow.
184	80	500*	24	*Nil.*	2	The catchment area consists of brownish black soil and has a steep fall favourable to a good run-off. During the year there was no run-off. The tank remained empty.
139*	25	500*	111	*Nil.*	3	The tank was empty.
131	67	203	51	7	4	Very little run-off.
145*	3	229*	16	5	5	The tank wrs completed in November 1916 and observations for the flow into the tank were taken in 1917 for the first time. The tank remained empty during the year.
Nil.	*Nil.*	2	..	*Nil.*	6	These works were completed in 1909. In 1910 and 1911 the tanks were empty. These tanks are fed by means of supply channels from the Matar Drainage Channel, which has a catchment area of 13 square miles and the length of the catchment ba in is 10 miles. These tanks remained empty during the year.
Nil.	*Nil.*	24	..	*Nil.*	7	
DECCAN.						
5,331*	1,091	2,688	437	2,401	8	Figures are also available for 1899 to 1903.
48,887*	46,695*	36,821*	48,048*	45,436*	9	
2,316	154	1,302	267	1666·52	10×	Original contents of 3.310 m. c. ft. is now reduced by silt deposit as ascertained by recent silt survey. Figures are also available for 1899 to 1903.
27,572*	21,381*	25,750*	29,189*	25,032*	11	Ghat catchment.
42,673*	37,728*	35,736*	42,130*	40,768*	12	Figures are also available from 1888 to 1903.
9,732*	1,448*	4,360*	6,006*	3,246*	13	Ghat catchment.
1,818*	183	350	23	283·26	14	Figures are also available for 1899 to 1903.
386	..	421	223	259·58	15	Figures are also available for 1899 to 1903.
500	..	710	384	94·91	16	The heavy discharge in 1916 was due to the abnormally heavy rainfall of 52·99 inches during that year which was the highest on record since 1899 and 20·88 inches more than the previous maximum rainfall in 1912. Figures are also available for 1899 to 1903.
2,712*	..	..	..	..	17	
110	33	195	37	27	18	Figures are also available for 1899 to 1903.

the period 1st May to 30th April following.
(*) the tank overflowed.
nor reliable.
figure is doubtful.

STATEMENT

Serial Number.	Name of Tank.	Run-off or discharge				
		1914.	1915.	1916.	1917.	1918.
		M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
19	Mukti Tank ..	348*	184	208*	151*	1
20	Waghad Tank ..	5,827*	1,991*	2,741*	3,156*	1,675*
21	Pathri Tank ..	836*	979*	1,396*	866*	50
22	Muchkundi Tank ..	36	172	×*	102	112
23	Shirsuphal Tank ..	170	213	238	307*	*Nil.*
24	Bhadalwadi Tank ..	126	156	355*	232*	38
25	Asundi Tank ..	210	228*	493*	1,178*‡	179
26	Parsul Tank ..	820*	341*	676*	176*	*Nil.*
27	Wadshivne Tank ..	52	81	213*	234*	36
28	Mhaswa Tank ..	348*	148	184	596*	63
29	Medieri Tank ..	14	48	84	540*‡	56
30	Talwada Tank ..	151	33	67	91	5
31	Shedbal Tank ..	×	×	×*	×*	15
32	Koregaon Tank ..	181*	225*	298*	164*	15
33	Hartala Tank ..	287*	621*	376*	100	*Nil.*
34	Khirdi Sathe Tank ..	70	79	77	75	*Nil.*
35	Mavinkop Tank ..	....	....	....	..	..
36	Gadikeri Tank ..	771	53	165*	108*	91*
37	Killedkeri Tank ..	109	33	72*	42*	14

Note.—The observations made
N.B.—During the years mar
× Discharged obs
‡ The discharge

VI—*concld.*

observed—*concld.*					Serial Number.	Remarks.
1919.	1920.	1921.	1922-23.	1923-24.		
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft	
DEC C A N—*concld.*						
680*	16	254	157	342·69	19	(*a*) Capacity reduced from 342 m. c. ft. owing to silt in tank. Figures are also available for 1899 to 1903.
4,900*	1,736*	2,166*	2,148*	2,638*	20	Ghat catchment. Figures are also available for 1900 to 1903.
363	132	258	62	585·30*	21	
283	382	332	102	28	22	In 1916 the tank overflowed for the first time since its construction. The maximum height of flood was 6 feet over the crest of weir. Figures are also available for 1899 to 1903.
246	188	55	130	1	23	Figures are also available for 1899 to 1903.
305*	6?3	139	23*	—12	24	
188*	51	124*	696*	108	25	Deccan catchment. Figures are also available for 1899 to 1903.
483*	*Nil.*	472*	..	334*	26	Figures are also available for 1899 to 1903.
180	116	70	36	89·04	27	
202*	56	187	106	85·10	28	The F. S. L. of the tank was increased from R. L. 151·00 to R. L. 152·00 in March 1915 previous to which the contents of the tank were 158 m. c. ft. Figures are also available for 1899 to 1903.
233*	68	48	76	40	29	The tank nearly filled in October. Figures are also available for 1899 to 1903.
118	24	22	..	18·89	30	The work appears for the first time in 1902.
..	28	24	22	..	31	(*b*) Corrected in 1920. No. observations taken in 1923-24.
30	..	34	5	152·11*	32	Figures are also available for 1899 to 1903.
42	2	28	27	32·47	33	Figures are also available for 1900 to 1902.
102	*Nil.*	49	..	25	34	
..	..	..	29	97*	35	The work appears for the first time in 1922.
52	..	..	12	51	36	
37	..	..	..	..	37	Observations discontinued from 1922.

pertain to the period 1st May to 30th April following.
ked (*) the tank overflowed.
erved not reliable.
figure is doubtful.

STATEMENT

Statement of Extraordinary Flood

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	
1	Hathmati River at Himatnagar (Ahmednagar, Idar State).	524	40	158,112
2	Lilka River in mile 11 of the Dhandhuka-Gogha Road.	50	14	20,000
3	Khara Ghore Tank in the Ahmedabad District.	43	17	18,741
4	Khandia River in mile 6 of the Godhra-Shera Road, Godhra Taluka.	35	8	15,963
5	Nala in mile 7 of the Ahmedabad-Dholka Road.	25	6	7,500
6	Chandrabhaga Nala on the Ahmedabad-Sabarmati Road.	23	8	9,200
7	Luni River on the Talod-Harsol Road, Prantij Taluka.	12	6	11,700
8	Salat Tank Nala ..	12·5	8	10,055
9	Karjan River at Nandod, Rajpipla State ..	540	27	386,813
10	Malan River at Mahuva in Kathiawar ..	110	23½	69,066
11	Khari River at Palitana, Kathiawar ..	88	14½	111,788
12	Navali River at Kundla in Bhavnagar State ..	15	6½	48,180

Note (1) :—*Mahi River.*—The flood level in the Mahi River had risen to 56 feet on 27th July 1913
Panam River.—On 27th July 1913 the flood had risen about 40 feet above "zero of gauge."

VII.

Discharges from Catchment Areas.

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
GUJARAT.			
Hilly and woody	0·467	3rd August 1909.	
Goradu and black ..	0·62	24th July 1905.	
Black and sandy soil ..	0·50	Do.	
Hilly with murum	0·70	Do.	
Goradu, sandy	0.50	Do.	
Do.	0.62	Do.	
Murum and laterite	1·50	15th July 1905.	
Flat consisting of cultivated fields and grass lands.	1·32	19th July 1913 ..	The earthen dam breached.
Hilly area with trees, shrubs, etc.	1·11	27th June 1913 ..	20·36 inches of rain in 24 hours ending at 8 a.m. of the 28th June 1913 including the period of maximum fall of 5·24 inches in 2 hours, with an hourly intensity of 2 inches and 62 cents.
Up to first 8 miles length the catchment surface is barren and hilly and the remaining is flat cultivable lands.	0·92	12th June 1913 ..	According to Mahuva dispensary gauge. Inches. On 11th from 15 to 24 hours .. 7·10 On 12th ,, 0 to 2 ,, .. 4·65 ,, ,, 2 to 8 ,, .. 1·25 Total .. 13·00
Flat agricultural land devoid of trees and bushes.	1·98	Do. ..	20 inches of rain in 24 hours on 12th June 1913 and 15 inches in 6 hours on 15th June 1913 at Palitana gauge.
Barren rocky surface ..	4·88	Do. ..	According to Kundla dispensary gauge. Inches. On 11th from 16 to 22 hours 5·09 ,, 22 to 23 ,, .. 4·00 ,, 23 to 24 ,, .. 7·00 On 12th ,, 0 to 8 ,, .. 3·74 Total .. 20·43

*i.e., about 16 feet above the section line recorded in the Executive Engineer's office.

Watrak River.—On 27th July 1913 the flood had risen about 40 feet above "zero of gauge".

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Acres.	Miles.	
13	Nala below Wangroli Tank, Thasra Taluka	600	1	816
14	Nala below Savli Tank, Kapadvanj Taluka	170	0·5	345
		Sq. miles.		DECCAN
15	Godavari at Kopargaon	2,880	60	172,200
16	Godavari at Nandur-Madhmeshvar ..	1,650	48	179,889 196,187 120,168
17	Godavari at Gangapur ..	145	18	23,396 32,547 33,704
18	Ghataprabha at Dhupdal Weir.. ..	1,080	70	126,567 112,240 144,344 218,500
19	Girna, near Malegaon, Taluka Malegaon. Nasik.	1,064	....	179,318
20	Panjhra, near Madhi, Taluka Amalner. Khandesh.	1,057	....	184,959
21	Panjhra, near Nahalod, Taluka Dhulia, Khandesh.	802	....	177,018
22	Panjhra, near Dhulia, Taluka Dhulia, Khandesh.	714	....	172,037 334,500
23	Panjhra at Pankheda	52	10	17,764 19,966
24	Mula and Mutha Rivers at Jamsetji Bund near Poona	864	36	188,034
25	Kumudwati River	540	46	....
26	Anor at Ganpur	502	35	169,168
27	Kukari at Shirapur	464	40·5	63,511 59,543
28	Vardha at Banvasi	444	16	55,519 36,218
29	Musam, near Malegaon, Taluka Malegaon. Nasik.	372	....	58,052
30	Koyna at Helwak	350	40	104,877 96,410 104,016 132,334 94,356 138,370
31	Kadwa at Palkhed	314	10½	84,696 58,583 26,411
32	Ghod at Nirgudsar	284	35	54,116 66,352
33	Panjhra near Nandwan, Taluka Pimpalner Khandesh.	283	....	37,114

VII—*contd.*

Nature of Catchment.	Rate of Run-off. inches per hour.	Date of Flood.	Remarks.
GUJARAT—*concld.*			
Goradu cultivated ..	1·36	23rd July 1905.	
Goradu grass land ..	2·02	Do.	
(GHAT CATCHMENT).			
Bounded by Ghats (4,000 to 5,000) falling abruptly to murum and black soil plain (2,000).	0·003	27th July 1912 ..	The H. F. L. is chisel cut on the masonry pillar of the ferry boat on Kopargaon side approaches.
Ghat Catchment ..	0·17	17th August 1907.	
	0·184	22nd July 1912.	
	0·12	18th July 1914.	
Rock, murum, black and reddish soil.	0·25	13th September 1916.	
	0·35	6th October 1917.	
	0·36	27th July 1919.	
Ghat Catchment ..	0·18	15th July 1900.	
	0·16	4th August 1907.	
	0·207	23rd July 1912.	
	0·314	6th August 1914 ..	Greatest flood ever recorded since the construction of the weir, standing 7·5 feet above crest of weir for 3½ hours. Flood level on gauge was 29·5 feet on 6th August 1914 equivalent to R. L. 2015·5.
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·26	Flood of 1806.	
	0·27		
	0·29		
Do. ..	0·33	Do.	
	0·73	27th June 1914 ..	The discharge of this flood is estimated, and as such is an approximate figure.
Half the catchment area in culturable soil and the rest hilly tracks composed of murum and boulders.	0·53	6th September 1916.	
	0·59	27th July 1919.	
....	0·33	30th July 1896.	
Hilly tracks ..	0·128	16th July 1882.	
Ghat Catchment ..	0·52	22nd July 1905.	
	0·20	16th September 1914.	
Ghat Catchment ..	0·20	4th August 1914.	
	0·19	26th October 1916.	
Hilly country consisting wholly of forest land of hard ground.	0·12	5th August 1916.	
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·24	Flood of 1806.	
Steep hilly ground of the ghat description with much scrub jungle throughout.	0·45	14th July 1903.	
	0·42	24th July 1905.	
	0·45	2nd October 1910.	
	0·57	22nd July 1912.	
	0·41	19th July 1913.	
	0·59	18th July 1914.	
	0·37	29th June 1915.	
	0·25	5th July 1918.	
Partly hilly ..	0·13	13th September 1916.	
	0·27	27th August 1917.	
Ghat Catchment ..	0·36	26th October 1916.	
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·204	Flood of 1806.	

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	DECCAN
34	Kukari at Edgaon ..	205	23	48,065 32,725
35	Tamraparni at Rajgoli ..	206	28	62,916 65,109
36	Lake Fife ..	196	24	81,270
37	Gunjawani at Mohori ..	183	24	35,719
38	Malaprabha at Khanapur ..	179	21	81,333
39	Malaprabha at Bhutewadi ..	126	17	13,064
40	Markandya at Shirur ..	165	24	43,419 107,703
41	Dama at Nandgaon ..	156	25	64,269 73,862
42	Bhima at Chas-Kaman ..	140	22	55,063 68,473
43	Ghataprabha at Hadlag ..	134	26	68,619 30,348
44	Lake Whiting ..	128	24	51,505
45	Tambdi and Girna ..	100	14½	165,102
46	Girna at Chankapur ..	100	10½	16,100 45,137
47	Kadwa at Karanjawan ..	96	12½	23,582 17,084 45,417
48	Harankashi at Ajra ..	94	14	22,083 20,422 46,504 68,520
49	Nira at Karanja ..	86	14	38,241 67,425 17,690 20,548
50	Krishna at Dhom ..	84	12½	17,548 25,572 26,337
51	Mina at Wadgaon ..	78	18½	45,477 42,507
52	Unanda at Wazerkhed ..	68	14	14,070 18,366
53	Karwa at Pimpalgaon ..	67	17	29,939 21,777
54	Nira at Apti (formerly called Nira at Natambi).	59	11½	32,375
55	Aundha Nala at Mukhne ..	52	18	25,188 44,418 6,713 6,468
56	Khandbara Tank on the Kan River ..	34	7	13,754 13,786 18,290
57	A small tributary of the Bedti River at the temporary bridge in mile 47 of the Karwar-Bellari Road.	20	8½	24,582
				DECCAN
58	Raipur Tank on the Waghur River ..	700	24	47,795

VII—*contd.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
(GHAT CATCHMENT)—*concld.*			
Ghat Catchment ..	0·28	26th June 1913.	
	0·19	25th October 1916.	
	0·37	29th July 1919.	
Rocky in the first reach, murum and steep ground in the rest but country flat.	0·49	6th August 1914.	
....	0·641	24th July 1905 ..	The maximum run-off assumed for the design of the waste weir is ½ inch.
Ghat Catchment .	0·30	27th June 1913.	
Rocky and steep throughout.	0·70	5th August 1914.	
Do. ..	0·16	3rd August 1916.	
	0·53	20th July 1223.	
Rocky for a small portion, murum and soil in the rest.	1·01	6th August 1914.	
Steep rocky hill sides murum slopes, rice field with a fair proportion of black soil fields.	0·64	16th August 1907.	
	0·74	20th July 1913.	
Ghat Catchment ..	0·62	19th July 1913.	
	0·76	31st July 1923.	
	0·79	6th August 1914.	
Rocky in the first reach, murum and steep ground in the rest.	0·35	29th July 1915.	
....	0·62	25th July 1905 ..	The maximum run-off assumed for the design of the waste weir is ½ inch.
Hilly, rocky and steep ..	2·56	22nd July 1912 ..	Gauged by increased volume in the tank; waste weir did not overflow.
	0·25	15th August 1916.	
	0·66	14th August 1907.	
Murum ..	0·38	5th August 1915.	
	0·28	21st August 1918.	
	0·73	27th July 1919.	
Rocky in the first reach, murum and steep ground in the rest, but country flat.	0·36	29th July 1915.	
	0·34	3rd August 1916.	
	0·77	20th July 1923.	
	1·23	25th July 1905.	
	0·09	2nd October 1910.	
Ghat Catchment ..	1·21	18th July 1913.	
	0·32	1st July 1915.	
	0·37	5th August 1916.	
Steep hilly country of the Ghat description with few trees.	0·32	15th August 1916.	
	0·48	28th July 1921.	
	0·49	19th July 1923.	
	0·90	22nd July 1912.	
Ghat Catchment ..	0·84	26th October 1916.	
	0·33	5th August 1915.	
Murum and reddish soil ..	0·42	28th September 1917.	
	0·68	2nd October 1919.	
Rocky, murum, black and reddish soil.	0·50	5th September 1916.	
Ghat Catchment ..	0·85	24th July 1921.	
Rocky, murum, black and reddish soil.	0·75	2nd August 1909.	
	1·32	8th August 1910.	
Ghat Catchment ..	0·31	26th August 1917.	
	0·29	6th July 1918.	
	0·63	27th July 1919.	
	0·63	19th September 1921.	
	0·83	25th July 1923.	
Do. ..	1·92	6th August 1914.	
(DECCAN CATCHMENT).			
Rocky in the first reach, murum and soil in the rest.	0·11	29th September 1917.	

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	DECCAN
59	Mula at Tas ..	592	51	94,965 100,341 117,910
60	Bori ..	446	....	115,170
61	Seena at Hatwalan ..	446	27	63,420
62	Yerla at Yeralwadi ..	274	32	31,242
63	Sina River at iron bridge (Poona-Nagar Road).	150	17	58,117
64	Parmapada Tank on the Bori River ..	117	25	37,735
65	Burai, near Wazdara, Taluka Pimpalner, Khandesh.	87	....	17,506
66	Maini Tank—Wang River—a tributary of the Yerla.	52	8½ (The catchment area is 11½ miles at greatest breadth).	25,500 7,000 14,200 37,000 22,400
67	Valumba Nala at point where it crosses Nagar-Dhond Road in mile No. 11.	48	12·5	28,426
68	Bori, near Tingri, Taluka Malegaon, Nasik ..	43	....	64,637
69	Odal at Khadakozath ..	38	12	13,505
70	Muchkundi Tank ..	26	7	23,693
71	Nasardi River at Nasik ..	25	12	19,074 22,494
72	Nala near Vilad Railway Station, mile 9 of Nagar-Malegaon Road.	11	3·5	11,995
73	Jamphal Nala near Songir, Taluka Dhulia, Khandesh.	10	....	5,902
74	Sina Nala at Shendi on Nagar-Paithan Road..	9·5	6	8,104
75	Wazarya Nala near Nahalod ..	7	....	5,970
76	Banhole Nala ..	7	3½	3,235
77	Nala No. 15 on Palkhed Canal ..	2·5	2½	3,204
78	Dhomna Nala, Nasik Irrigation District ..	1·50	1·25	2,102
79	Ekruk Tank ..	For the great	flood at Ekruk	reference may

VII—*contd.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
DECCAN CATCHMENT)—*continued.*			
Black and reddish soil and rocky near hills.	0·25 0·26 0·31	26th June 1913. 18th July 1914. 26th October 1916.	
Local Deccan Catchment ..	0·403	18th July 1889.	
Black Khalga soil, murum and rock near hills.	0·22	23rd June 1913.	
Hilly at the sides with deep black and brownish black soil in the valley between.	0·18	10th September 1916.	
Ordinary soil ..	0·60	19th August 1910 ..	Water crossed main roads, city side of bridged 9 inches in depth.
Rocky in the first reach, murum and soil in the rest.	0·17	6th October 1917.	
Local Deccan Catchment ..	0·31	Flood of 1896.	
....	0·76	23rd and 24th Sept. 1874.	Water rose to 4·5 feet above crest of weir.
....	....	....	
....	0·42	22nd September 1885.	
Fan-shaped catchment, fringed on one side by hills standing about 800 feet above tank level. Soil principally of the black Deccan variety.	1·11	October 1889 ..	This very extraordinary flood is the greatest of which anything is known. It topped the waste weir by 6 feet.
....	0·66	12th September 1899 ..	This flood rose 3·9 feet above wasteweir.
Most in murum not Ghat Catchment 2,200 feet above sea level.	0·91	31st August 1910 ..	This flood rose 2 or 3 feet higher, in Walki village 3¼ miles below roads, than ever previously and washed away 20 or more houses and damaged the Police Lines.
Local Deccan Catchment ..	2·34	Flood of 1896.	
Murum, red and black soil ..	0·55	12th September 1916.	Greatest height was 15·95 feet, giving mean area of 2,214 sq. feet.
Partially hilly ..	1·41	2nd November 1916 ..	The discharge given is for the highest flood.
Murum, earth, etc. ..	1·18 1·39	13th June 1909. 1st October 1910.	
Ordinary soil (small hillocks) ..	1·60	19th September 1910 ..	The Camp of R. D. Fusiliers was washed away.
Local Deccan Catchment ..	0·92	Flood of 1896.	
Basin-shaped with hills 500 feet. ..	1·30	31st August 1910 ..	The flood damaged a large part of Shendi village which had not before been reached by a flood.
....	0·79	27th June 1914 ..	The discharge of this flood is estimated, and as such is an approximate figure.
Murum, black and reddish soil ..	0·72	6th September 1916.	
Black soil and murum ..	1·98	13th June 1909.	
Hilly and flat country with rock, murum and soil at surface.	2·26	14th June 1908.	

be made to the statement on page 51.

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	GODAVARI
80	Deo Nala at Aqueduct No. 3 on the Godavari Right Bank Canal.	135	24	49,555
81	Kolgaon Nala at Aqueduct No. 7 on the Godavari Right Bank Canal.	110	18·5	65,076
82	Kat Nala at Aqueduct No. 15 ..	45	8	13,210
83	Dambar Nala at Aqueduct No. 4 on the Godavari Right Bank Canal.	·20	7	35,062
84	Nala at mile 19—684 feet of the Godavari Right Bank Canal.	2·5	1·5	2,625
				GODAVARI
85	Nala No. 47 at mile 47—798 feet, Aqueduct No. 23 on Godavari Left Bank Canal.	72·75	17·5	47,812
86	Nala No. 26 at mile 24—2837 feet Aqueduct No. 12 on Godavari Left Bank Canal.	35·5	15	14,233
87	Nala No. 2 mile 1—1300 feet, Culvert No. 1-B on Godavari Left Bank Canal.	12·8	0·25	16,203
88	Nala No. 32 ..	0·4	1	702
89	Nala No. 39 ..	1	1·5	1,980
				PRAVARA
90	Lendi Nala at mile 4 of Pravara Left Bank Canal.	8	5	7,450
91	Nala No. 37	0·06	1·5	380·3

VII—*concld.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
RIGHT BANK CANAL.			
Ordinary Deccan, rises in fort hills.	0·57	1st October 1910.	
Ordinary flat, Deccan plain catchment, Nala rises in fort hills.	0·93	Do.	
Soil and soft murum below ..	0·45	23rd June 1915.	
Flat and devoid of trees, red soil and murum on surface.	2·70	1st October 1910.	
Flat cultivated land of light soil with murum near surface.	1·04	12th June 1910.	
LEFT BANK CANAL.			
Ordinary Deccan catchment, rising in small hills.	1·02	1st October 1910.	
Mostly black soil, rises in fort hills near Manmad.	0·02	Do.	
Mostly black soil, rises in small hills near Vinchur.	....	Do.	
Soil on surface	2·08	26th June 1913.	
Do.	3·1	22nd June 1913.	
LEFT BANK CANAL.			
Soil	1·44	28th September 1910.	
Soil and murum below ..	0·61	23rd June 1913.	

ADDENDA TO STATEMENT VII.

AHMEDABAD DISTRICT.

Description of the flood which occurred on the 3rd August 1909 on the Hathmati River at Himatnagar (Ahmednagar) in the Idar State.

The maximum intensity of the flood at the weir on the Hathmati River at Himatnagar (Ahmednagar) in the Idar State is calculated as	158,112 cusecs.
The length of weir	1,040 feet.
Height of water above crest—	
Upstream	12·50 feet.
Downstream	5·75 feet.
Velocity of approach 6 feet per second.	
The corresponding (maximum) rate of run-off per hour from the catchment is	0·467 inch.
The catchment area is	524 sq. miles.
The greatest length of the catchment area is ..	40 miles.

The catchment is both hilly and woody.

The rainfall measured at the weir site was 7 inches in 14 hours and at the centre of the catchment 10 inches. The rainfall was probably greater on the hills.

ADDENDA TO STATEMENT VII—*contd.*

SHOLAPUR DISTRICT.

Statement of discharges from the Catchment of the Ekruk Tank as observed in September 1872.

Time of observation.	Level of water surface.	Quantity impounded between these levels in c. ft.	Quantity discharged from the tank over two waste weirs.*	The total in-flow into the tank during period (total of columns 3 and 4).
1	2	3	4	5
19th September 8 P. M. ..	R. L. 203·00			
20th „ 4 A. M. ..	„ 204·00	190 536,000	....	190,536,000
„ „ 6 A. M. ..	„ 206·00	404,160,000	5,760,000	409,920,000
„ „ 4 P. M. ..	„ 208·00	439,044,000	124,200,000	564,144,000
„ „ 10 P. M. ..	„ 214·00	1,489,536,000	440,596,800	1,930,132,800

Time of observation.	The length of time.	Catchment area of tank.	Run-off in inches per hour over the catchment.	Remarks.
	6	7	8	9
19th September 8 P. M. ..				
20th „ 4 A. M. ..	8 hours.	159 Square Miles.	·064	
„ „ 6 A. M. ..	2 hours.		·553	
„ „ 4 P. M. ..	10 hours.		·153	
„ „ 10 P. M. ..	6 hours.		·870	

* The discharge is assumed to be mean of the discharge at two levels.

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ADDENDA TO STATEMENT VII—*concld.*

POONA IRRIGATION DISTRICT.

Statement of discharges from the Catchment of Lake Fife as observed on 24th July 1905.

(Area 196 sq. miles.)

Hour of observation.	Height of water in the tank above sills of outlet sluices.	Discharge from the waste weir at the hour of observation.	Mean discharge.	Discharge necessary to produce the rise of water in the tank at a uniform rate.	Total average discharge.	Remarks.
1	2	3	4	5	6	7
	Feet.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	
2 p.m.	32·35	48,259				
			52,188	29,181	*81,270	*As the rate of rise must have been high in the beginning of the hour, the discharge could not have been less than 48,259 + 29,081 = 77,340 cusecs.
3 p.m.	33·00	56.118				
			58,330	15,747	74,077	
4 p.m.	33·35	60,503				
			62,178	11,300	73,478	
5 p.m.	33·60	63,793				
			65,321	11,318	76,640	
6 p.m.	33·85	66,850				

BELGAUM DISTRICT.

Statement of discharges from the Catchment of the Dhupdal Reservoir as observed on the 5th August 1914.

(Area of Catchment 1,080 sq. miles.)

Hour of observation.	Height of water in the tank above sills of under sluices.	Discharges over the weir and through the under-sluices at the hour of observation.	Mean discharge.	Discharge necessary to produce the rise of water in the tank at a uniform rate.	Total average discharge.	Remarks.
1	2	3	4	5	6	7
	Feet.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	
6 a.m.	27·70	146,797				
			148,057	1,697	150,354	
7 a.m.	27·80	150,518				
			153,362	2,546	155,908	
12 a.m.	27·96	156,205				
			157,158	1,273	158,431	
2 p.m.	28·00	158,111				
			160,111	2,715	162,826	
4 p.m.	28·10	162,111				

STATEMENT VIII.

Observed Deposit of Silt in Tanks.

Name of Tank.	Year.	Catchment area.	Original capacity.	Total silt deposit since construction.	Number of years since construction.	Rate of total deposit in million cubic feet per square mile per year.	Rate of deposit in million cubic feet per square mile for the year.	Remarks.
1	2	3	4	5	6	7	8	9
		Sq. miles	M. cft.	M. cft.				M. cft.
Muchkundi Tank.	1906	26	703·59	57·85	22	0·10	..	Rate of silting since construction of the tank till 1906 was .. ·10
	1910			63·69	26	0·094	..	From 1906 to 1910 .. ·056
Goka k Basin.	1905	1,080	907·182 up to R. L. 2003, the crest of the perinanent weir.	14·19	14	0·001	0·002*	
	1909			155·079	18	0·008	..	
	1910			173·59	19	0·0085	0·0171	
	1911			189·39	20	0·0088	0·0146	
	1912			207·97	21	0·0092	0·0172	
	1916			§189·97†	25	§0·007030	§..‡	
	1917			§228·71	26	§0·0081	§0·036	
	1919			296·60	28	0·0098	¶0·0117	
	1920			192·02(*a*)	29	0·00613	Nil	
	1921			196·18	30	0·00606	0·00385	
	1923-24			166·42(*b*)	32	0·0048		
Dambal Tank.	1896 to 1912	43	114·18	15·71	36	•• 0·017	‡‡0·0229	The first improvements to this old tank were carried out in 1876. The capacity was calculated in 1896 and found to be 114·18 M. cft.
	1912 to 1914			18·48	38		‡‡0·0316	
	1914 to 1923			20 08	47		‡‡0·0042	
	1923-24			20·22	48		‡‡0·0033	
Mavinkop Tank.	1909 to 1912	6·25	43·29	5·54	31	†† 0·078	‡‡0·295	The first improvements to this old tank were carried out in 1878. The capacity was calculated in 1909 and found to be 43·29 M. cft.
	1912 to 1914			6·27	36		‡‡0·0584	
	1914 to 1923			7·06	45		‡‡0·014	
	1923-24			7·32	46		‡‡0·042	

Note.—For the figures of silt deposits in Mainl, Dambal, Asundi, Pingli and Kelgeri Tanks, prior to 1906, reference may be made to the Statement printed at page 12 of the Report of 1906.

* Calculated on the silt deposited during 1903-04 and 1904-05.

† The difference between the total silt deposit till 1912 and that till 1916 is due to the fact that 18·00 M. cft. of silt was washed away from 1912 to 1916.

‡ This quantity cannot be ascertained as the observations have been made after 4 years since they were last undertaken.

§ Results reported not reliable.

¶ Average deposit per year per-square mile or catchment since 1912. Figures for the years 1916 and 1917 are reported to be unreliable. Therefore those for the year 1912 have been taken in calculating this figure.

(*a*) The difference between the figures of the total silt deposit till 1919 and 1920 is due to the fact that 104·58 M. cft. of silt was washed away in 1920, and this gives a rate of ·097 M. cft per square mile for the year.

•• Calculated from the year 1896 to 1923.

†† Calculated from the year 1909.

‡‡ For the periods mentioned in Column 2.

(*b*) The difference between the total silt deposit till 1921 and that till 1923-24 was due to the fact that 29·76 M. cft. silt was washed away during the period of two years.

STATEMENT IX.

Statement showing the results of observations on evaporation for the year 1923-24.

Name of tank.	Year and month.	Number of days on which observations were taken.	Daily average evaporation in feet.	Remarks.
1	2	3	4	5
Gokak Canal 1st Section and storage works at Dhupdal, Belgaum District.	May 1923 ..	31	0·038	
	June 1923 ..	..	..	
	July 1923 ..	..	..	On account of rain and bad weather observations could not be taken from June to September 1923.
	August 1923 ..	..	..	
	September 1923 ..	..	..	
	October 1923 ..	26	0·015	
	November 1923 ..	30	0·017	
	December 1923 ..	31	0·018	
	January 1924 ..	31	0·017	
	February 1924 ..	29	0·027	Observations for evaporation were made as usual by means of the iron tank.
	March 1924 ..	31	0·027	
	April 1924 ..	30	0·036	
Muchkundi Tank, Bijapur District.	May 1923 ..	17	0·031	Periods were selected in each month when there was no inflow or sluice discharge. The fall of water level during the period was noted from which the daily rate of evaporation was calculated.
	June 1923 ..	19	0·029	
	July 1923 ..	17	0·018	
	August 1923 ..	21	0·026	
	September 1923 ..	12	0·024	
	October 1923 ..	25	0·022	
	November 1923 ..	21	0·021	
	December 1923 ..	24	0·021	
	January 1924 ..	19	0·017	
	February 1924 ..	15	0·023	
	March 1924 ..	12	0·034	
	April 1924 ..	..	..	The tank was dry.

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	No. of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Ekruk Tank ..	May 1923 ..	15th to 18th ..	..	..	..	Results unreliable.
	June 1923 ..	15th to 18th ..	..	..	..	
	July 1923 ..	28th to 31st ..	3	0·01	0·003	
	August 1923 ..	28th to 31st ..	3	0·04	0·013	
	September 1923.	24th to 27th ..	3	0·02	0·007	
	October 1923 ..	18th to 21st ..	3	0·04	0·013	
	November 1923.	19th to 22nd ..	3	0·03	0·01	Results unreliable.
	December 1923.	28th to 31st ..	3	0·03	0·01	
	January 1924 ..	21st to 24th ..	3	0·03	0·91	
	February 1924..	18th to 21st ..	3	0·04	0·013	
	March 1924 ..	17th to 20th ..	3	0·05	0·016	
	April 1924 ..	21st to 24th ..	3	0·06	0·02	
Fathri Tank ..	May 1923 ..	....	..	..	..	Observations not taken as the iron tank was not repaired.
	June 1923 ..	3rd to 6th ..	3	0·041	0·041	
	July 1923 ..	....	..	..	..	Observations not taken as the replenishment was being received.
	August 1923 ..	....	..	..	..	
	September 1923.	....	..	..	..	
	October 1923 ..	....	..	..	..	There was some inflow from both the Nalas and so no observations were taken.
	November 1923.	....	..	..	..	
	December 1923..	30th Nov. to 4th Dec.	4	0·08	0·02	
	January 1924 ..	6th to 10th ..	4	0·08	0·02	
	February 1924 .	19th to 23rd ..	4	0·088	0·022	
	March 1924 ..	27th to 31st ..	4	0·088	0·022	
	April 1924 ..	10th to 14th ..	4	0·100	0·025	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	No. of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Ashti Tank ..	May 1923 ..	14th to 17th ..	3	0·08	·027	
	June 1923 ..	7th to 10th ..	3	0·07	·023	
	July 1923 ..	16th to 19th ..	3	0·05	0·017	
	August 1923 ..	12th to 15th ..	3	0·05	0·017	
	September 1923 .	22nd to 24th ..	2	0·02	0·01	As rain threatened on the morning of 24th September 1923 observations had to be stopped for fear that the iron tank would be filled with rain water.
	October 1923 ..	12th to 14th ..	2	0·06	0·03	
	November 1923 .	23rd to 26th ..	3	0·07	0·0233	
	December 1923..	18th to 21st ..	3	0·08	0·0267	
	January 1924 ..	11th to 15th ..	4	0·16	0·04	Results unreliable.
	February 1924..	14th to 17th ..	3	0·05	0·017	
	March 1924 ..	....	..	..	..	Observations not taken as the tank became dry.
	April 1924 ..	....	..	..	..	
Mukti Tank ..	May 1923 ..	23rd to 26th ..	3	·084	·028	
	June 1923 ..	....	..	..	..	No observation taken as there was no water in the tank.
	July 1923 ..	....	..	..	..	No observations were taken as the water level of the tank was increasing.
	August 1923 ..	....	..	..	..	No observations were taken as the days were cloudy with a slight drizzle.
	September 1923.	....	..	..	..	No observations were taken as the water level of the tank was increasing.

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	No. of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Mukti Tank —*contd.*	October 1923 ..	....	..	..	..	No observations were taken as there was partial flow in tank.
	November 1923..	26th to 29th ..	3	0·030	0·010	
	December 1923..	26th to 29th ..	3	0·045	0·015	
	January 1924 ..	23rd to 26th ..	3	0·045	0·015	
	February 1924..	26th to 29th ..	3	0·060	0·020	
	March 1924 ..	28th to 31st ..	3	0·063	0·021	
	April 1924 ..	27th to 30th ..	3	0·78	0·026	
Hartala Tank..	May 1923 ..	....	..	..	..	No observations made as the tank was dry.
	June 1923 ..	....	..	..	..	
	July 1923 ..	....	..	..	..	
	August 1923 ..	11th to 15th ..	4	..	..	No observations owing to rain.
	September 1923.	11th to 17th ..	6	..	..	Do.
	October 1923 ..	12th to 16th ..	4	0·074	0·0185	
	November 1923 .	12th to 16th ..	4	0·048	0·0120	
	December 1923 .	14th to 18th ..	4	0·058	0·0145	
	January 1924 ..	13th to 17th ..	4	0·050	0·0125	
	February 1924 .	14th to 18th ..	4	0·056	0·014	
	March 1924 ..	....	..	..	..	The tank was dry.
	April 1924 ..	....	..	..	..	
Mhaswa Tank..	May 1923 ..	22nd to 26th ..	4	0·184	0·046	
	June 1923 ..	....	..	..	..	Results unreliable.
	July 1923 ..	26th to 30th ..	4	..	..	
	August 1923 ..	24th to 28th ..	4	0·045	0·0112	Results unreliable owing to rain.
	September 1923.	18th to 22nd ..	4	..	..	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	No. of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Mhaswa Tank —*contd.*	October 1923 ..	6th to 10th ..	4	0·088	0·022	
	November 1923.	12th to 16th ..	4	0·080	0·020	
	December 1923.	....	..	..	..	Observations unreliable.
	January 1924 ..	15th to 19th ..	4	0·040	0·010	
	February 1924 ..	16th to 20th ..	4	0·076	0·0190	
	March 1924 ..	17th to 21st ..	4	0·073	0·0182	
	April 1924 ..	21st to 25th ..	4	0·126	0·0315	
Lake Fife at Khadakwasla.	October 1923 ..	18th to 31st ..	13	·22	0·0169	
	November 1923..	31st Oct. to 11th ..	11	·17	0·0155	The observations were taken in an iron tank.
		11th to 21st ..	10	·16	0·0160	
		21st to 30th ..	9	·13	0·0144	
	December 1923..	30th Nov. to 15th .	15	·23	0·0153	
		15th to 25th ..	10	·16	0·0160	
		25th to 31st ..	6	·00	0·0150	
	January 1924 ..	11th to 21st ..	10	·17	0·0170	
		21st to 31st ..	10	·17	0·0170	
	February 1924..	31st Jan. to 10th..	10	·11	0·0110	Replenishment in the Tank.
		10th to 20th ..	10	·19	0·0190	
	February and March 1924.	20th Feb. to 6th March 1924.	15	·25	0·107	
	March 1924 ..	18th to 28th ..	15	·31	0·0207	
	April 1924 ..	11th to 23rd ..	12	·23	0·0194	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date and hour of observation.	No. of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Lake Whiting .	January 1924 ..	31st December 1923 (6 p.m.) to 31st January 1924 (6 p.m.).	31	·40	0·01290	
	February 1924	31st January (6 p.m.) to 29th February 1924 (6 p.m.).	29	·67	0·02310	
	March 1924 ..	29th February (6 p.m.) to 31st March 1924 (6 p.m.).	31	·93	0·03000	
	April 1924 ..	31st March (6 p.m.) to 30th April 1924 (6 p.m.).	30	·90	0·03000	
Lake Beale (Darna Dam).	May 1923 ..	4th (12-40 p.m.) to 16th (12-40 p.m.).	12	0·394	·038	
	February 1924 ..	15th (6 a.m.) to 21st (6 a.m.).	6	0·160	·027	
	March 1924 ..	18th (6 p.m.) to 27th (6 a.m.)	8½	0·286	·034	
Waghad Tank	May 1923 ..	10th to 14th (6 a.m.).	4	0·146	0·036	
		15th to 19th (6 a.m.).	4	0·136	0·034	
		20th to 24th (6 a.m.).	14	0·115	·029	
	April 1924 ..	11th to 15th (6 a.m.).	4	0·061	·015	
		15th to 23rd (6 a.m.).	8	0·139	·017	

STATEMENT

Statement showing the results of observations for the total losses including

Name of tank.	Month and year.	Date.	No. of days.	Gauge reading at commencement.	Total loss.	Average loss per day.
1	2	3	4	5	6	7
				Feet.	Feet.	Feet.
Ekruk Tank ..	May 1923 ..	15th to 18th ..	..	..	..	..
	June 1923 ..	15th to 18th ..	..	..	..	..
	July 1923 ..	28th to 31st ..	3	1507·70	0·02	0·007
	August 1923 ..	28th to 31st ..	3	1507·09	0·060	0·02
	September 1923 ..	24th to 27th ..	3	1514·95	0·03	0·01
	October 1923 ..	18th to 21st ..	3	1514·66	0·06	0·02
	November 1923 ..	19th to 22nd ..	3	1513·87	0·12	0·04
	December 1923 ..	28th to 31st ..	3	1512·55	0·050	0·016
	January 1924 ..	21st to 24th ..	3	1511·74	0·080	0·027
	February 1924 ..	18th to 21st ..	3	1510·90	0·07	0·023
	March 1924 ..	17th to 20th ..	3	1510·26	0·080	0·027
	April 1924 ..	21st to 24th ..	3	1509·50	0·080	0·027
Pathri Tank ..	May 1923 ..	....	..	..	..	..
	June 1923 ..	3rd to 6th ..	3	226·58	0·06	0·02
	July 1923 ..	....	..	..	..	..
	August 1923 ..	....	..	..	..	..
	September 1923 ..	....	..	..	..	..
	October 1923 ..	....	..	..	..	..
	November 1923 ..	....	..	..	..	..
	December 1923 ..	30th Nov. to 4th December.	4	239·25	0·10	0·025
	January 1924 ..	6th to 10th ..	4	237·86	0·12	0·03
	February 1924 ..	19th to 23rd ..	4	235·77	0·12	0·03
	March 1924 ..	27th to 31st ..	4	234·62	0·12	0·03
	April 1924 ..	10th to 14th ..	4	234·22	·12	0·03
Ashti Tank ..	May 1923 ..	14th to 17th ..	3	215·410	0·102	0·034
	June 1923 ..	7th to 10th ..	3	214·61	0·10	0·033
	July 1923 ..	16th to 19th ..	3	214·28	0·06	0·02
	August 1923 ..	12th to 15th ..	3	214·74	0·06	0·02
	September 1923 ..	22nd to 24th ..	2(a)	219·67(b)	0·05	0·016

IX—*conta*

evaporation, leakage, percolation and absorption for the year 1923-24.

Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.			Remarks.
			Evaporation.	Leakage.	Percolation and absorption.	
8	9	10	11	13	12	14
	Inches.	Feet.	Feet.	Feet.	Feet.	
..	..	..	..	..	..	Results unreliable.
..	..	..	..	..	..	
..	..	..	·003	†	..	†The figures could not be obtained as the leakage gutters were full of rain water.
..	..	..	0·013	†	†	
..	..	..	0·007	†	†	
..	..	..	0·013	Nil.	0·005	0·002 Municipal supply.
..	..	..	‡0·010	Nil.	0·007	‡ Observations unreliable.
..	..	..	‡0·010	Nil.	0·004	0·002 Municipal supply and 0·021 Canal discharge.
..	..	..	‡0·010	Nil.	0·015	0·003 Municipal supply.
..	..	..	0·013	Nil.	0·008	0·002 Do. do.
..	..	..	0·016	Nil.	0·008	0·003 Do. do.
..	..	..	0·016	Nil.	0·008	·0003 Do. do.
..	..	..	..	..	..	Observations not taken as the iron tank was out of order.
..	..	..	0·014	0.00004	0·00211	0.00377 spent in distribution.
	..	..	..	..	..	No observations as the replenishment was being received.
	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	..	..	..	No observations were taken as there was some inflow from both the Nalas in the canals.
..	..	..	..	..	..	
	..	..	0·02	0·0005	0·0028	0·002 Water supply to Barsi Municipality.
	..	..	0·02	0·0004	0·007	0·002 Do. do.
..	..	..	0·022	0·0008	0·005	0·0024
..	..	..	0·022	0·0008	0·005	0·0025 Spent in distribution.
..	..	..	0·025	0·0003	0·005	0·0020
	..	..	0·027	Nil.	0·007	
	..	..	0·023	Nil.	0·003	0·007 Spent in distribution.
..	..	..	0·017	Nil.	0·003	
..	..	..	0·017	Nil.	0·003	
..	nil	..	0·01	Nil.	0·004	(a) No observation could be taken earlier owing to rain. (b) The reading in column 5 could not be taken much closer than the cents, hence the difference between columns 7, and 11 and 13.

STATEMENT

Name of tank.	Month and year.	Date.	No. of days.	Gauge reading at commencement.	Total loss.	Average loss per day.
1	2	3	4	5	6	7
				Feet.	Feet.	Feet.
Ashti Tank —*contd.*	October 1923 ..	12th to 14th ..	2	210·17	0·06	0·03
	November 1923 ..	23rd to 26th ..	3	216·27	0·021	0·07
	December 1923 ..	18th to 21st ..	3	214·26	0·027	0·09
	January 1924 ..	11th to 15th ..	4	212·18	0·28	0·07
	February 1924 ..	14th to 17th ..	3	210·61	0·06	0·02
	March 1924 ..	....	..	..	..	..
	April 1924 ..	....	..	..	..	..
Mukti Tank ..	May 1923 ..	23rd to 26th ..	3	901·61	·11	·038
	June 1923 ..	....	..	..	..	..
	July 1923 ..	....	..	..	..	..
	August 1923 ..	....	..	..	..	..
	September 1923 ..	....	..	..	..	..
	October 1923 ..	....	..	..	..	..
	November 1923 ..	26th to 29th ..	3	924·84	0·06	0·020
	December 1923 ..	26th to 29th ..	3	923·21	0·07	0·023
	January 1924 ..	23rd to 26th ..	3	922·01	0·07	0·024
	February 1924 ..	26th to 29th ..	3	920·48	0·08	0·026
	March 1924 ..	28th to 31st ..	3	919·25	0·08	0·26
	April 1924 ..	27th to 30th ..	3	918·11	0·10	0·033
Hartala Tank ..	May 1923 ..	....	..	..	..	..
	June 1923 ..	....	..	..	..	..
	July 1923 ..	....	..	..	..	..
	August 1923 ..	11th to 15th ..	4	4·96	0·06	0·015
	September 1923 ..	11th to 17th ..	6	4·58	0·05	0·008
	October 1923 ..	12th to 16th ..	4	4·52	0·12	0·030
	November 1923 ..	12th to 16th ..	4	3·52	0·10	0·025
	December 1923 ..	14th to 18th ..	4	2·84	0·10	0·025
	January 1924 ..	13th to 17th ..	4	2·24	0·09	0·0225
	February 1924 ..	14th to 18th ..	4	1·50	0·10	0·025

IX—*contd.*

Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.			Remarks.
			Evaporation.	Leakage.	Percolation and absorption.	
8	9	10	11	12	13	14
	Inches.	Feet.	Feet.	Feet.	Feet.	
..	..	..	3·03	Nil.	0·007	No discharge. The difference is very small as the reading could not be taken closer than the cents.
..	..	..	0·0233	Nil.	0·0067	0·042 discharge.
..	..	..	0·0267	Nil.	0·0043	0·061 discharge.
..	..	..	0·04	Nil.	0·003	0·029 discharge unreliable.
..	..	..	0·017	Nil.	0·003	No discharge.
..	..	..	..	..	..	No observation as the tank was dry.
..	..	..	..	..	..	
..	..	..	·028	..	·010	
..	..	..	..	..	..	No observations were taken as there was no water in the tank.
..	..	..	..	..	..	No observations as the water in the tank was increasing.
..	..	..	..	..	..	No observations as the days were cloudy with slight drizzles.
..	..	..	..	..	..	No observations as the water in the tank was increasing.
..	..	..	..	..	..	No observations as there was partial flow in the tank.
..	..	..	0·010	0·004	0·006	
..	..	..	0·015	0·004	0·004	
..	..	..	0·015	0·003	0·006	
..	..	..	0·020	0·002	0·004	
..	..	..	0·021	0·002	·003	
..	..	..	0·020	0·002	·005	
..	..	..	..	..	..	No observations could be made the tank being dry.
..	..	..	..	..	..	
..	..	..	..	..	..	
14 & 15	1·11	..	..	..	..	Results unreliable as the tank received replenishment.
13th to 15th.	1·30	..	..	..	..	
..	..	..	0·0185	Nil.	0·0115	
..	..	..	0·0120	Nil.	0·0130	
..	..	..	0·0145	Nil.	0·0105	
..	..	..	0·0125	Nil.	0·0100	
..	..	..	0·014	Nil.	0·011	

STATEMENT

Name of tank.	Month and year.	Date.	No. of days.	Gauge reading at commencement.	Total loss.	Average loss per day.
1	2	3	4	5	6	7
				Feet.	Feet.	Feet.
Hartala Tank —*contd.*	March 1924 ..	....	..	..	..	..
	April 1924 ..	....	..	..	..	..
Mhaswa Tank ..	May 1923 ..	22nd to 26th ..	4	14·30	0·30	0·075
	June 1923 ..	....	..	..	..	..
	July 1923 ..	26th to 30th ..	4	17·20	..	..
	August 1923 ..	24th to 28th ..	4	17·10	0·10	0·025
	September 1923 ..	18th to 22nd ..	4	19·00	..	..
	October 1923 ..	6th to 10th ..	4	19·90	0·10	0·025
	November 1923 ..	12th to 16th ..	4	18·90	0·30	0·075
	December 1923 ..	....	..	..	..	....
	January 1924 ..	15th to 19th ..	4	16·60	0·10	0·025
	February 1924 ..	16th to 20th ..	4	15·20	0·10	0·025
	March 1924 ..	17th to 21st ..	4	14·30	0·30	0·075
	April 1924 ..	21st to 25th ..	4	12·90	0·20	0·050

IX—contd.

Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.			Remarks.
			Evaporation.	Leakage.	Percolation and absorption.	
8	9	10	11	12	13	14
	Inches.	Feet.	Feet.	Feet.	Feet.	
..	..	..	..	..	..	No observations as the tank was dry.
..	..	..	..	..	..	
..	..	..	0·046	0·0017	0·0182	0·009 draw off.
..	..	..	..	..	..	Results unreliable as the tank received replenishment.
26th to 30th.	0·60	..	..	..	..	Do.
..	..	..	..	..	..	Do.
18th to 22nd.	2·10	1·00	..	..	..	Do.
..	..	..	0·022	0·0017	0·0013	
..	..	..	0·020	0·0017	0·0310	0·0217 draw off in canals.
..	..	..	..	..	..	Observations unreliable.
..	..	..	0·010	0·0006	0·0121	0·0020 draw off in canals.
..	..	..	0·0190	0·0006	0·0051	
..	..	..	0·0182	0·0007	0·0201	0·0360 draw off in canals.
..	..	..	0·0315	0·0007	0·0038	0·0140 „ „

STATEMENT

Statement showing the results of observations for the total losses

year

Name of tank.	Month and year.	Date.	No. of days.	Gauge readings at commencement.	Total loss.
1	2	3	4	5	6
				Feet.	Feet.
Lake Whiting ..	January 1924 ..	31st December 1923 (6 p. m.) to 31st January 1924 (6 p. m.).	31	60·70	0·42
	February 1924 ..	31st January 1924 (6 p. m.) to 29th February 1924 (6 p. m.).	29	60·05	0·73
	March 1924 ..	28th February 1924 (6 p.m.) to 31st March 1924 (6 p. m.).	31	60·01	1·08
	April 1924 ..	31st March 1924 (6 p. m.) to 30th April 1924 (6 p. m.).	30	55·80	1·30

No. IX—*concld.*

including evaporation, leakage, percolation and absorption for the 1923-24—concld.

Average loss per day.	Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.		
				Evaporation.	Leakage.	Percolation and absorption.
7	8	9	10	11	12	13
Feet.		Inches.	Feet.	Feet.	Feet.	Feet.
0·01355	....	....	....	0·01290	·00007	·00058
·02517	21st ..	·02	....	0·02310	·00021	·00186
0·03484	....	....	....	0·03000	·00048	·00436
0·04333	1st ..	0·65	....	·03060	·00080	·01244
	21st ..	·23				

STATEMENT

Statement of Silt observations made on some of the rivers in the

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
1	Krishna at Mahuli bridge.	17th July 1923 ..	Left Bank ..	..	3 0
		Do. ..	Centre ..	..	5 0
		Do. ..	Do. ..	..	5 0
		Do. ..	Do. ..	..	5 0
		Do. ..	Right Bank ..	..	4 0
2	Do. ..	27th July 1923 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Right Bank ..	..	6 0
3	Do. ..	1st Aug. 1923 ..	Left Bank ..	..	8 0
		Do. ..	Centre ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Right Bank ..	..	9 0
4	Krishna at Kudchi Railway Bridge.	7th July 1923 ..	Left Bank ..	..	22 0
		Do. ..	Centre ..	..	28 0
		Do. ..	Do. ..	..	28 0
		Do. ..	Do. ..	..	28 0
		Do. ..	Right Bank ..	..	31 0
5	Do. ..	16th July 1923 ..	Left Bank ..	..	22 0
		Do. ..	Centre ..	..	34 0
		Do. ..	Do. ..	..	34 0
		Do. ..	Do. ..	..	34 0
		Do. ..	Right Bank ..	..	28 0
6	Do. ..	1st Aug. 1923 ..	Left Bank ..	..	26 0
		Do. ..	Centre ..	..	42 0
		Do. ..	Do. ..	..	42 0
		Do. ..	Do. ..	..	42 0
		Do. ..	Right Bank ..	..	34 0

No. X.

Deccan Irrigation Division, during the monsoon of the year 1923-24.

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
1	0	4·44	1·07	Left Bank. Middepth specimen.
1	0	4·44	..	Centre. Top specimen.
2	6	4·44	100·55	Do. Middepth specimen.
4	6	4·44	..	Do. Bottom specimen.
2	0	3·61	153·96	Right Bank. Middepth specimen.
2	6	6·66	240·09	Left Bank. Middepth specimen.
1	0	5·71	..	Centre. Top specimen.
4	0	5·71	188·35	Do. Middepth specimen.
7	0	5·71	..	Do. Bottom specimen.
3	0	8·00	197·41	Right Bank. Middepth specimen.
4	0	8·00	116·20	Left Bank. Middepth specimen.
1	0	6·66	..	Centre. Top specimen.
5	0	6·66	96·74	Do. Middepth specimen.
9	0	6·66	..	Do. Bottom specimen.
4	0	10·00	98·20	Right Bank. Middepth specimen.
11	0	3·75	3·02	Left Bank middepth specimen.
0	0	6·00	..	Centre. Top specimen.
14	0	6·00	2·72	Do. Middepth specimen.
27	0	6·00	..	Do. Bottom specimen.
17	0	5·00	2·76	Right Bank. Middepth specimen.
11	0	3·85	3·81	Left Bank. Middepth specimen.
0	0	6·82	..	Centre. Top specimen.
17	0	6·82	3·83	Do. Middepth specimen.
33	0	6·82	..	Do. Bottom specimen.
14	0	4·05	3·00	Right Bank. Middepth specimen.
13	0	5·00	1·01	Left Bank. Middepth specimen.
0	0	7·50	..	Centre. Top specimen.
21	0	7·50	·84	Do. Middepth specimen.
41	0	7·50	..	Do. Bottom specimen.
17	0	5·36	·74	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
7	Krishna at Kudchi Railway Bridge.	8th Aug. 1923 ..	Left Bank ..	..	24 0
		Do. ..	Centre ..	..	34 0
		Do. ..	Do. ..	..	34 0
		Do. ..	Do. ..	..	34 0
		Do. ..	Right Bank ..	..	24 0
8	Krishna at Kusnal ..	23th June 1923 ..	Left Bank ..	7·15	13 0
		Do. ..	Centre ..	7·15	14 0
		Do. ..	Do. ..	7·15	14 0
		Do. ..	Do. ..	7·15	14 0
		Do. ..	Right Bank ..	7·15	16 0
9	Do. ..	27th June 1923 ..	Left Bank ..	6·25	12 0
		Do. ..	Centre ..	6·25	13 0
		Do. ..	Do. ..	6·25	13 0
		Do. ..	Do. ..	6·25	13 0
		Do. ..	Right Bank ..	6·25	15 0
10	Do. ..	4th July 1923 ..	Left Bank ..	15·20	21 0
		Do. ..	Centre ..	15·20	22 0
		Do. ..	Do. ..	15·20	22 0
		Do. ..	Do. ..	15·20	22 0
		Do. ..	Right Bank ..	15·20	24 0
11	Do. ..	29th Aug. 1923 ..	Left Bank ..	27·70	34 0
		Do. ..	Centre ..	27·70	35 0
		Do. ..	Do. ..	27·70	35 0
		Do. ..	Do. ..	27·70	35 0
		Do. ..	Right Bank ..	27 70	36 0
12	Do. ..	18th Sept. 1923 ..	Left Bank ..	9·75	16 0
		Do. ..	Centre ..	9·75	17 0
		Do. ..	Do. ..	9·75	17 0
		Do. ..	Do. ..	9·75	17 0
		Do. ..	Right Bank ..	9·75	18 0
13	Do. ..	21st Sept. 1923 ..	Left Bank ..	15·85	22 0
		Do. ..	Centre ..	15·85	23 0
		Do. ..	Do. ..	15·85	23 0
		Do. ..	Do. ..	15·85	23 0
		Do. ..	Right Bank ..	15·85	24 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
12	0	3·57	·48	Left Bank. Middepth specimen.
0	6	5·00	..	Centre. Top specimen.
17	0	5·00	·71	Do. Middepth specimen.
33	0	5·00	..	Do. Bottom specimen.
12	0	3·95	·39	Right Bank. Middepth specimen.
6	0	1·11	1·53	Left Bank. Middepth specimen.
0	6	1·18	..	Centre. Top specimen.
7	0	1·18	2·11	Do. Middepth specimen.
13	0	1·18	..	Do. Bottom specimen.
8	0	1·33	3·29	Right Bank. Middepth specimen.
6	0	1·00	1·45	Left Bank. Middepth specimen.
0	6	1·11	..	Centre. Top specimen.
6	6	1·11	1·60	Do. Middepth specimen.
12	0	1·11	..	Do. Bottom specimen.
7	6	1·18	2·28	Right Bank. Middepth specimen.
10	6	3·08	5·89	Left Bank. Middepth specimen.
0	6	3·44	..	Centre. Top specimen.
11	0	3·44	4·00	Do. Middepth specimen.
21	0	3·44	..	Do. Bottom specimen.
12	0	4·00	4·40	Right Bank. Middepth specimen.
17	0	4·44	·57	Left Bank. Middepth specimen.
0	6	5·26	..	Centre. Top specimen.
17	6	5·26	·37	Do. Middepth specimen.
34	0	5·26	..	Do. Bottom specimen.
18	0	5·00	·53	Right Bank. Middepth specimen.
8	0	2·00	2·08	Left Bank. Middepth specimen.
0	6	2·11		Centre. Top specimen.
8	6	2·11	2·45	Do. Middepth specimen.
16	0	2·11	..	Do. Bottom specimen.
9	0	1·92	1·99	Right Bank. Middepth specimen.
11	0	3·33	3·37	Left Bank. Middepth specimen.
0	6	3·45	..	Centre. Top specimen.
11	6	3·45	2·50	Do. Middepth specimen.
22	0	3·45	..	Do. Bottom specimen.
"		3·24	3·88	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
14	Krishna at Kusnal ..	25th Sept 1923 ..	Left Bank ..	21·30	33 0
		Do. ..	Centre ..	24·30	31 0
		Do. ..	Do. ..	24·30	31 0
		Do. ..	Do. ..	24·30	31 0
		Do. ..	Right Bank ..	24·30	33 0
15	Nira at Railway bridge.	1st Aug. 1923 ..	Left Bank ..	..	8 6
		Do. ..	Centre ..	..	4 9
		Do. ..	Do. ..	..	4 9
		Do. ..	Do. ..	..	4 9
		Do. ..	Right Bank ..	..	9 3
16	Do ..	20th Sept. 1923 ..	Left Bank ..	..	3 9
		Do. ..	Centre ..	..	3 9
		Do. ..	Do. ..	..	3 9
		Do. ..	Do. ..	..	3 9
		Do. ..	Right Bank ..	..	4 6
17	Bhima at Pargaon ..	4th July 1923 ..	Left Bank ..	..	7 0
		Do. ..	Centre ..	..	11 0
		Do. ..	Do. ..	..	11 0
		Do. ..	Do. ..	..	11 0
		Do. ..	Right Bank ..	..	9 0
18	Do. ..	20th July 1923 ..	Left Bank ..	..	40 0
		Do. ..	Centre ..	..	60 0
		Do. ..	Do. ..	..	60 0
		Do. ..	Do. ..	..	60 0
		Do. ..	Right Bank ..	..	50 0
19	Do. ..	25th July 1923 ..	Left Bank ..	..	30 0
		Do. ..	Centre ..	..	50 0
		Do. ..	Do. ..	..	50 0
		Do. ..	Do. ..	..	50 0
		Do. ..	Right Bank ..	..	40 0

No. X.—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
15	0	3·85	1·05	Left Bank. Middepth specimen.
0	6	4·54	..	Centre. Top specimen.
15	6	4·54	·93	Do. Middepth specimen.
30	0	4·54	..	Do. Bottom specimen.
16	6	4·17	·86	Right Bank. Middepth specimen.
4	3	5·9	41·70	Left Bank. Middepth specimen.
0	6	7·00	..	Centre. Top specimen.
2	4½	7·00	21·34	Do. Middepth specimen.
3	9	7·00	..	Do. Bottom specimen.
4	7½	6·2	47·04	Right Bank. Middepth specimen.
1	10½	3·2	1·88	Left Bank. Middepth specimen.
0	6	3·7	..	Centre. Top specimen.
1	10½	3·7	3·25	Do. Middepth specimen.
2	9	3·7	..	Do. Bottom specimen.
2	3	3·4	29·48	Right Bank. Middepth specimen.
3	6	0·23	2·32	Left Bank. Middepth specimen.
0	6	0·23	..	Centre. Top specimen.
5	6	0·23	2·30	Do. Middepth specimen.
10	0	0·23	..	Do. Bottom specimen.
4	6	0·23	1·47	Right Bank. Middepth specimen.
20	0	4·58	17·05	Left Bank. Middepth specimen.
0	6	5·58	..	Centre. Top specimen.
30	0	4·58	20·54	Do. Middepth specimen.
50	0	4·58	..	Do. Bottom specimen.
25	0	4·58	26·05	Right Bank. Middepth specimen.
18	0	3·75	71·04	Left Bank. Middepth specimen.
0	6	3·75	..	Centre. Top specimen.
26	0	3·75	40·48	Do. Middepth specimen.
49	0	3·75	..	Do. Bottom specimen.
20	0	3·75	20·01	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
					Ft. in.
20	Bhima at Pargaon ..	29th July 1923 ..	Left Bank ..	..	20 0
		Do. ..	Centre ..	..	23 0
		Do. ..	Do. ..	..	23 0
		Do. ..	Do. ..	..	23 0
		Do. ..	Right Bank ..	..	19 0
21	Do. ..	1st Aug. 1923 ..	Left Bank ..	..	43 0
		Do. ..	Centre ..	..	47 0
		Do. ..	Do. ..	..	47 0
		Do. ..	Do. ..	..	47 0
		Do. ..	Right Bank ..	..	36 0
22	Do. ..	6th Aug. 1923 ..	Left Bank ..	..	24 0
		Do. ..	Centre ..	..	19 0
		Do. ..	Do. ..	..	19 0
		Do. ..	Do. ..	..	19 0
		Do. ..	Right Bank ..	..	20 0
23	Do. ..	16th Aug. 1923 ..	Left Bank ..	..	12 0
		Do. ..	Centre ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Right Bank ..	..	16 0
24	Do. ..	20th Aug. 1923 ..	Left Bank ..	..	12 0
		Do. ..	Centre ..	..	14 0
		Do. ..	Do. ..	..	14 0
		Do. ..	Do. ..	..	14 0
		Do. ..	Right Bank ..	..	13 0
25	Bhima at Koregaon.	15th July 1923 ..	Left Bank ..	..	6 3
		Do. ..	Centre ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Right Bank ..	..	5 0
26	Do. ..	16th July 1923 ..	Left Bank ..	..	6 3
		Do. ..	Centre ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Right Bank ..	..	7 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
10	0	1·25	3·83	Left Bank. Middepth specimen.
0	6	1·25	..	Centre. Top specimen.
11	0	1·25	3·00	Do. Middepth specimen.
22	0	1·25	....	Do. Bottom specimen.
0	6	1·25	13·53	Right Bank. Middepth specimen.
21	0	4·08	33·75	Left Bank. Middepth specimen.
0	6	4·08	..	Centre. Top specimen.
23	6	4·08	10·83	Do. Middepth specimen.
46	0	4·08	..	Do. Bottom specimen.
18	0	4·08	8·67	Right Bank. Middepth specimen.
12	0	1·64	3·46	Left Bank. Middepth specimen.
0	6	1·64	..	Centre. Top specimen.
9	6	1·64	1·87	Do. Middepth specimen.
18	0	1·64	..	Do. Bottom specimen.
10	0	1·64	2·15	Right Bank. Middepth specimen.
6	0	1·19	3·47	Left Bank. Middepth specimen.
0	6	1·19	..	Centre. Top specimen.
9	0	1·19	1·17	Do. Middepth specimen.
17	0	1·19	..	Do. Bottom specimen.
8	0	1·19	1·14	Right Bank. Middepth specimen.
5	0	1·46	2·08	Left Bank. Middepth specimen.
0	6	1·46	..	Centre, Top specimen.
7	0	1·46	7·04	Do. Middepth specimen.
13	0	1·46	..	Do. Bottom specimen.
6	6	1·46	1·73	Right Bank. Middepth specimen.
3	1½	4·06	12·72	Left Bank. Middepth specimen.
0	6	4·06	..	Centre. Top specimen.
5	0	4·06	16·03	Do. Middepth specimen.
9	0	4·06	..	Do. Bottom specimen.
2	6	5·06	9·00	Right Bank. Middepth specimen.
3	1½	4·06	5·54	Left Bank. Middepth specimen.
0	6	4·85	..	Centre. Top specimen.
4	0	4·85	18·85	Do. Middepth specimen.
7	0	4·85	..	Do. Bottom specimen.
3	6	4·33	10·73	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.	
1	2	3	4	5	6	
					Ft.	in.
27	Bhima at Koregaon ..	19th July 1923 ..	Left Bank ..	..	8	0
		Do. ..	Centre ..	..	12	5
		Do. ..	Do. ..	..	12	5
		Do. ..	Do. ..	..	12	5
		Do. ..	Right Bank ..	..	6	0
28	Do. ..	24th July 1923 ..	Left Bank ..	..	10	0
		Do. ..	Centre ..	..	15	0
		Do. ..	Do. ..	..	15	0
		Do. ..	Do. ..	..	15	0
		Do. ..	Right Bank ..	..	8	0
29	Do. ..	31st July 1923 ..	Left Bank ..	..	12	4
		Do. ..	Centre ..	..	13	0
		Do. ..	Do. ..	..	13	0
		Do. ..	Do. ..	..	13	0
		Do. ..	Right Bank ..	..	8	0
30	Do. ..	8th Aug. 1923 ..	Left Bank ..	..	9	0
		Do. ..	Centre ..	..	7	4
		Do. ..	Do. ..	.	7	4
		Do. ..	Do. ..	..	7	4
		Do. ..	Right Bank ..	..	6	2
31	Do. ..	9th Aug. 1923 ..	Left Bank ..	..	10	5
		Do. ..	Centre ..	..	11	5
		Do. ..	Do. ..	..	11	5
		Do. ..	Do. ..	..	11	5
		Do. ..	Right Bank ..	..	6	9
32	Do. ..	16th Sept. 1923 ..	Left Bank ..	..	6	6
		Do. ..	Centre ..	..	6	4
		Do. ..	Do. ..	..	6	4
		Do. ..	Do. ..	..	6	4
		Do.	Right Bank ..	..	4	8
33	Do. ..	17th Sept. 1923 ..	Left Bank ..	..	7	0
		Do. ..	Centre ..	..	7	0
		Do. ..	Do. ..	..	7	0
		Do. ..	Do. ..	..	7	0
		Do. ..	Right Bank ..	..	6	2

No. X—*contd.*

Depth from surface of silt specimen.	Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7	8	9	10
Ft. in.		Grains.	
4 0	5·01	22·56	Left Bank. Middepth specimen.
0 6	5·51	..	Centre. Top specimen.
6 2½	5·51	29·08	Do. Middepth specimen.
11 5	5·51	..	Do. Bottom specimen.
3 0	4·33	14·45	Right Bank. Middepth specimen.
5 0	6·50	5·85	Left Bank. Middepth specimen.
0 6	4·04	..	Centre. Top specimen.
7 6	4·04	29·72	Do. Middepth specimen.
14 0	4·04	..	Do. Bottom specimen.
4 0	4·04	3·32	Right Bank. Middepth specimen.
6 2	7·22	6·90	Left Bank. Middepth specimen.
0 6	4·04	..	Centre. Top specimen.
6 6	4·04	9·02	Do. Middepth specimen.
12 0	4·04	..	Do. Bottom specimen.
4 0	4·39	8·30	Right Bank. Middepth specimen.
4 6	5·01	4·95	Left Bank. Middepth specimen.
0 6	5·25	..	Centre. Top specimen.
3 8	5·25	8·49	Do. Middepth specimen.
6 4	5·25	..	Do. Bottom specimen.
3 1	4·38	17·45	Right Bank. Middepth specimen.
5 2½	5·01	1·20	Left Bank. Middepth specimen.
0 6	5·25	..	Centre. Top specimen.
5 8½	5·25	4·07	Do. Middepth specimen.
10 5	5·25	..	Do. Bottom specimen.
3 4½	4·75	4·18	Right Bank. Middepth specimen.
3 3	3·10	0·48	Left Bank. Middepth specimen.
0 6	2·92	..	Centre. Top specimen.
3 2	2·92	10·88	Do. Middepth specimen.
5 4	2·92	..	Do. Bottom specimen.
2 4	2·32	0·26	Right Bank. Middepth specimen.
3 6	3·08	3·07	Left Bank. Middepth specimen.
0 6	2·66	..	Centre. Top specimen.
3 6	2·66	3·45	Do. Middepth specimen.
6 0	2·66	..	Do. Middepth specimen.
3 1	2·32	4·07	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
					Ft. in
34	Bhima at Koregaon..	21st Sept. 1923 ..	Left Bank ..	..	7 6
		Do. ..	Centre ..	..	10 10
		Do. ..	Do. ..	..	10 10
		Do. ..	Do. ..	..	10 10
		Do. ..	Righ Bank ..	..	7 0
35	Do. ..	22nd Sept. 1923 ..	Left Bank ..	..	9 4
		Do. ..	Centre ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Right Bank ..	..	7 6
36	Ghod at Kalamb ..	13th July 1923 ..	Left Bank ..	..	8 0
		Do. ..	Centre ..	..	11 0
		Do. ..	Do. ..	..	11 0
		Do.	Do. ..	..	11 0
		Do. ..	Right Bank. ..	..	7 0
37	Do. ..	19th July 1923 ..	Left Bank ..	..	11 0
		Do. ..	Centre ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Right Bank ..	..	10 0
38	Do ..	21st July 1923 ..	Left Bank ..	..	11 0
		Do. ..	Centre ..	..	14 0
		Do. ..	Do ..	..	14 0
		Do. ..	Do. ..	..	14 0
		Do. ..	Right Bank. ..	..	10 0
39	Do. ..	24th July 1923 ..	Left Bank ..	..	10 0
		Do. ..	Centre ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Right Bank ..	..	9 0
40	Do. ..	18th Aug. 1923 ..	Left Bank ..	..	3 6
		Do. ..	Centre ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Right Bank ..	..	3 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
3	0	6·50	6·83	Left Bank. Middepth specimen.
0	6	5·91	..	Centre. Top specimen.
5	5	5·91	13·03	Do. Middepth specimen.
9	10	5·91	..	Do. Bottom specimen.
3	6	5·91	7·71	Right Bank. Middepth specimen.
4	8	5·91	1·23	Left Bank. Middepth specimen.
0	6	5·16	..	Centre. Top specimen.
6	0	5·16	4·36	Do. Middepth specimen.
11	0	5·16	..	Do. Bottom specimen.
3	9	3·42	2·50	Right Bank. Middepth specimen.
4	0	4·2	11·50	Left Bank. Middepth specimen.
0	6	4·5	..	Centre. Top specimen.
5	6	4·5	19·95	Do. Middepth specimen.
10	0	4·5	..	Do. Bottom specimen.
3	6	4·0	25·08	Right Bank. Middepth specimen.
5	0	5·1	25·16	Left Bank. Middepth specimen.
0	6	5·4	..	Centre. Top specimen.
6	6	5·4	31·30	Do. Middepth specimen.
12	0	5·4	..	Do. Bottom specimen.
5	0	4·9	26·41	Right Bank. Middepth specimen.
5	6	5·0	·77	Left Bank. Middepth specimen.
0	6	5·9	..	Centre. Top specimen.
7	0	5·9	12·42	Do. Middepth specimen.
13	0	5·9	..	Do. Bottom specimen.
5	0	4·9	40·23	Right Bank. Middepth specimen.
5	0	4·2	·70	Left Bank. Middepth specimen.
0	6	5·0	..	Centre. Top specimen.
6	6	5·0	21·70	Do. Middepth specimen.
12	0	5·0	..	Do. Bottom specimen.
4	6	4·0	1·36	Right Bank. Middepth specimen.
1	9	3·0	1·31	Left Bank. Middepth specimen.
0	6	3·2	..	Centre. Top specimen.
2	0	3·2	·82	Do. Middepth specimen.
3	0	3·2	..	Do. Bottom specimen.
1	5	2·9	·46	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
41	Ghod at Kalamb ..	11th Sept. 1923 ..	Left Bank ..	..	9 0
		Do. ..	Centre ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Do. ..	..	13 0
		Do. ..	Right Bank ..	..	8 0
42	Mula at Rahuri ..	17th July 1923 ..	Left Bank ..	7·80	11 0
		Do. ..	Centre ..	7·80	9 0
		Do. ..	Do. ..	7·80	9 0
		Do. ..	Do. ..	7·80	9 0
		Do. ..	Right Bank ..	7·80	4 0
43	Do. ..	25th July 1923 ..	Left Bank ..	10·25	14 0
		Do. ..	Centre ..	10·25	11 0
		Do. ..	Do. ..	10·25	11 0
		Do. ..	Do. ..	10·25	11 0
		Do. ..	Right Bank ..	10·25	7 0
44	Do. ..	29th July 1923 ..	Left Bank ..	11·00	15 6
		Do. ..	Centre ..	11·00	12 0
		Do. ..	Do. ..	11·00	12 0
		Do. ..	Do. ..	11·00	12 0
		Do. ..	Right Bank ..	11·00	8 0
45	Do. ..	31st July 1923 ..	Left Bank ..	9·00	11 0
		Do. ..	Centre ..	9·00	9 0
		Do. ..	Do. ..	9·00	9 0
		Do. ..	Do. ..	9·00	9 0
		Do. ..	Right Bank ..	9·00	5 0
46	Do. ..	1st Aug. 1923 ..	Left Bank ..	11·50	16 0
		Do. ..	Centre ..	11·50	13 0
		Do. ..	Do. ..	11·50	13 0
		Do. ..	Do. ..	11·50	13 0
		Do. ..	Right Bank ..	11·50	8 0
47	Do. ..	2nd Aug. 1923 ..	Left Bank ..	11·00	15 0
		Do. ..	Centre ..	11·00	12 0
		Do. ..	Do. ..	11·00	12 0
		Do. ..	Do. ..	11·00	12 0
		Do. ..	Right Bank ..	11·00	7 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
4	6	4·6	95·20	Left Bank. Middepth specimen.
0	6	5·6	..	Centre. Top specimen.
6	6	5·6	8·48	Do. Middepth specimen.
12	0	5·6	..	Do. Bottom specimen.
4	0	4·2	3·30	Right Bank. Middepth specimen.
5	6	4·05	22·51	Left Bank. Middepth specimen.
0	6	3·57	..	Centre. Top specimen.
4	6	3·57	53·37	Do. Middepth specimen.
8	0	3·57	..	Do. Bottom specimen.
2	0	3·12	71·44	Right Bank. Middepth specimen.
7	0	4·29	100·48	Left Bank. Middepth specimen.
0	6	3·95	..	Centre. Top Specimen.
5	6	3·95	93·02	Do. Middepth specimen.
10	0	3·95	..	Do. Bottom specimen.
3	6	3·38	44·59	Right Bank. Middotph specimen.
7	0	4·55	32·43	Left Bank. Middepth specimen.
0	6	4·16	..	Centre. Top specimen.
6	0	4·16	23·56	Do. Middepth specimen.
11	0	4·16	..	Do. Bottom specimen.
4	0	3·06	24·18	Right Bank. Middepth specimen.
5	6	4·17	16·12	Left Bank. Middepth specimen.
0	6	3·75	..	Centre. Top specimen.
4	6	3·75	16·58	Do. Middepth specimen.
8	0	3·75	..	Do. Bottom specimen.
2	6	3·19	9·7	Right Bank. Middepth specimen.
8	0	4·60	276·16	Left Bank. Middepth specimen.
0	6	4·05	..	Centre. Top specimen.
6	6	4·05	17·68	Do. Middepth specimen.
12	0	4·05	..	Do. Bottom specimen.
4	0	3·75	41·24	Right Bank. Middepth specimen.
7	6	4·54	33·00	Left Bank. Middepth specimen.
0	6	3·85	..	Centre. Top specimen.
6	0	3·85	31·47	Do. Middepth specimen.
11	0	3·85	..	Do. Bottom specimen.
3	6	3·57	27·46	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
48	Mula at Rahuri ..	3rd Aug. 1923 ..	Left Bank ..	9·35	12 0
		Do. ..	Centre ..	9·35	10 0
		Do. ..	Do. ..	9·35	10 0
		Do. ..	Do. ..	9·35	10 0
		Do. ..	Right Bank ..	9·35	6 0
49	Do. ..	11th Aug. 1923 ..	Left Bank ..	10·00	13 0
		Do. ..	Centre ..	10·00	11 0
		Do. ..	Do. ..	10·00	11 0
		Do. ..	Do ..	10·00	11 0
		Do. ..	Right Bank ..	10·00	6 0
50	Do. ..	12th Aug. 1923 ..	Left Bank ..	11·15	16 0
		Do. ..	Centre ..	11·15	12 0
		Do. ..	Do. ..	11·15	12 0
		Do. ..	Do. ..	11·15	12 0
		Do. ..	Right Bank ..	11·15	8 0
51	Do. ..	15th Aug. 1923 ..	Left Bank ..	9·55	12 0
		Do. ..	Centre ..	9·55	10 0
		Do. ..	Do. ..	9·55	10 0
		Do. ..	Do. ..	9·55	10 0
		Do. ..	Right Bank ..	9·55	6 0
52	Do. ..	17th Aug. 1923 ..	Left Bank ..	9·70	12 0
		Do. ..	Centre ..	9·70	10 0
		Do. ..	Do. ..	9·70	10 0
		Do. ..	Do. ..	9·70	10 0
		Do. ..	Right Bank ..	9·70	5 0
53	Do. ..	16th Sept. 1923 ..	Left Bank ..	9·05	12 0
		Do. ..	Centre ..	9·05	9 0
		Do. ..	Do. ..	9·05	9 0
		Do. ..	Do. ..	9·05	9 0
		Do. ..	Right Bank ..	9·05	5 0
54	Do. ..	18th Sept. 1923 ..	Left Bank ..	8·45	11 0
		Do. ..	Centre ..	8·45	8 0
		Do. ..	Do. ..	8·45	8 0
		Do. ..	Do. ..	8·45	8 0
		Do. ..	Right Bank ..	8·45	5 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
6	0	4·05	39·70	Left Bank. Middepthe specimen.
0	6	3·85	..	Centre. Top specimen.
5	0	3·85	37·72	Do. Middepth specimen.
9	0	3·85	..	Do. Bottom specimen.
3	0	3·33	24·79	Right Bank. Middepth specimen.
6	6	4·41	66·90	Left Bank. Middepth specimen.
0	6	4·05	..	Centre. Top specimen.
5	0	4·05	42·92	Do. Middepth specimen.
10	0	4·05	..	Do. Bottom specimen.
3	0	3·33	76·83	Right Bank. Middepth specimen.
8	0	4·53	17·04	Left Bank. Middepth specimen.
0	6	4·29	..	Centre. Top specimen.
6	0	4·29	10·56	Do. Middepth specimen.
11	0	4·29	..	Do. Bottom specimen.
4	0	3·75	7·23	Right Bank. Middepth specimen.
6	0	4·17	13·42	Left Bank. Middepth specimen.
0	6	3·85	..	Centre. Top specimen.
5	0	3·85	24·00	Do. Middepth specimen.
9	0	3·85	..	Do. Bottom specimen.
3	0	3·33	2·83	Right Bank. Middepth specimen.
6	0	4·56	31·51	Left Bank. Middepth specimen.
0	6	4·05	..	Centre. Top specimen.
5	0	4·05	14·00	Do. Middepth specimen.
9	0	4·05	..	Do. Bottom specimen.
2	6	3·57	10·56	Right Bank. Middepth specimen.
6	0	4·17	30·18	Left Bank. Middepth specimen.
0	6	3·75	..	Centre. Top specimen.
4	6	3·75	16·88	Do. Middepth specimen.
8	0	3·75	..	Do. Bottom specimen.
2	6	3·90	17·13	Right Bank. Middepth specimen.
5	6	3·95	36·24	Left Bank. Middepth specimen.
0	6	3·57	..	Centre. Top specimen.
4	0	3·57	33·78	Do. Middepth specimen.
7	0	3·57	..	Do. Bottom specimen.
2	6	3·06	21·24	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
55	Mula at Rahuri ..	19th Sept. 1923 ..	Left Bank ..	10·15	14 0
		Do. ..	Centre ..	10·15	11 0
		Do. ..	Do. ..	10·15	11 0
		Do. ..	Do. ..	10·15	11 0
		Do. ..	Right Bank ..	10·15	6 0
56	Do. ..	20th Sept. 1923 ..	Left Bank ..	10·45	16 0
		Do. ..	Centre ..	10·45	12 0
		Do. ..	Do. ..	10·45	12 0
		Do. ..	Do. ..	10·45	12 0
		Do. ..	Right Bank ..	10·45	6 0
57	Do. ..	21st Sept. 1923 ..	Left Bank ..	8·50	12 0
		Do. ..	Centre ..	8·50	8 0
		Do. ..	Do. ..	8·50	8 0
		Do. ..	Do. ..	8·50	8 0
		Do. ..	Right Bank ..	8·50	5 0
58	Mula at Ambeghargaon.	31st July 1923 ..	Left Bank ..	..	10 0
		Do. ..	Centre ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Right Bank ..	..	4 0
59	Do. ..	9th Aug. 1923 ..	Left Bank ..	..	15 0
		Do.	Centre ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Right Bank ..	..	7 0
60	Do. ..	3rd Sept. 1923 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	4 0
61	Do. ..	16th Sept. 1923 ..	Left Bank ..	..	4 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	5 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet. per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
7	0	4·41	52·95	Left Bank. Middepth specimen.
0	6	4·17	..	Centre. Top specimen.
6	6	4·17	60·78	Do. Middepth specimen.
10	0	4·17	..	Do. Bottom specimen.
3	0	3·57	30·07	Right Bank. Middepth specimen.
8	0	4·00	33·00	Left Bank. Middepth specimen.
0	6	3·95	..	Centre. Top specimen.
6	0	3·95	26·94	Do. Middepth specimen.
11	0	3·95	..	Do. Bottom specimen.
3	0	3·66	24·27	Right Bank. Middepth specimen.
6	0	4·05	20·06	Left Bank. Middepth specimen.
0	6	3·49	..	Centre. Top specimen.
4	0	3·49	26·56	Do. Middepth specimen.
7	0	3·49	..	Do. Bottom specimen.
2	6	3·00	15·11	Right Bank. Middepth specimen.
5	0	5·71	27 55	Left Bank. Middepth specimen.
0	6	5·71	..	Centre. Top specimen.
9	0	5·71	22·05	Do. Middepth specimen.
17	0	5·71	..	Do. Bottom specimen.
2	0	5·71	17·52	Right Bank. Middepth specimen.
7	6	6·06	2·45	Left Bank. Middepth specimen.
0	6	6·06	..	Centre. Top specimen.
5	0	6·06	1·61	Do. Middepth specimen.
9	0	6·06	..	Do. Bottom specimen.
3	0	6·06	72·80	Right Bank Middepth specimen.
3	0	5·41	1·18	Left Bank. Middepth specimen.
0	6	5·41	..	Centre. Top specimen.
4	6	5·41	19·58	Do. Middepth specimen.
8	0	5·41	..	Do. Bottom specimen.
2	0	5·41	2·28	Right Bank. Middepth specimen.
2	0	5·00	9·94	Left Bank. Middepth specimen.
0	6	5·00	..	Centre. Top specimen.
4	6	5·00	9·08	Do. Middepth specimen.
8	0	5·00	..	Do. Bottom specimen.
2	0	5·00	8·48	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. In.
62	Mula at Ambeghargaon.	21st Sept. 1923 ..	Left Bank ..	..	1 0
		Do. ..	Centre ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Right Bank ..	..	3 0
63	Kukari at Pimpalwadi.	16th July 1923 ..	Left Bank ..	..	8 0
		Do. ..	Centre ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Do. ..	..	8 0
		Do. ..	Right Bank ..	..	6 0
64	Do. ..	28th July 1923 ..	Left Bank ..	..	13 0
		Do. ..	Centre ..	..	15 6
		Do. ..	Do. ..	..	15 6
		Do. ..	Do. ..	..	15 6
		Do. ..	Right Bank ..	..	0 10
65	Do. ..	9th Aug. 1923 ..	Left Bank ..	..	8 6
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	4 6
66	Do. ..	11th Aug. 1923 ..	Left Bank ..	..	12 8
		Do. ..	Centre ..	..	13 6
		Do. ..	Do. ..	..	13 6
		Do. ..	Do. ..	..	13 6
		Do. ..	Right Bank ..	..	6 0
67	Do. ..	21st Aug. 1923 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	5 0
		Do. ..	Do. ..	..	5 0
		Do. ..	Do. ..	..	5 0
		Do. ..	Right Bank ..	..	3 6

No. X—*concld.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
0	6	5·00	1·77	Left Bank. Middepth specimen.
0	6	5·00	..	Centre. Top specimen.
6	0	5·00	58·33	Do. Middepth specimen.
11	0	5·00	..	Do. Bottom specimen.
1	6	5·00	74·88	Right Bank. Middepth specimen.
4	0	4·0	3·64	Left Bank. Middepth specimen.
0	6	4·7	..	Centre. Top specimen.
4	0	4·7	3·36	Do. Middepth specimen.
7	0	4·7	..	Do. Bottom specimen.
3	0	4·8	4·16	Right Bank. Middepth specimen.
6	6	5·0	7·16	Left Bank. Middepth specimen.
0	6	5·0	..	Centre. Top specimen.
7	9	5·0	7·42	Do. Middepth specimen.
14	6	5·0	..	Do. Bottom specimen.
4	11	5·0	10·69	Right Bank. Middepth specimen.
4	3	4·9	9·42	Left Bank. Middepth specimen.
0	6	4·9	..	Centre. Top specimen.
4	6	4·9	2·33	Do. Middepth specimen.
8	0	4·9	..	Do. Bottom specimen.
2	3	4·0	1·42	Right Bank. Middepth specimen.
6	4	5·0	8·50	Left Bank. Middepth specimen.
0	6	5·0	..	Centre. Top specimen.
6	9	5·0	81·18	Do. Middepth specimen.
12	6	5·0	..	Do. Bottom specimen.
3	0	4·4	55·71	Right Bank. Middepth specimen.
2	6	4·5	·94	Left Bank. Middepth specimen.
0	6	4·4	..	Centre. Top specimen.
2	6	4·4	1·01	Do. Middepth specimen.
4	0	4·4	..	Do. Bottom specimen.
1	0	3·6	·46	Right Bank. Middepth specimen.

ADDENDA TO THE REPORT.

(1) ABSTRACT SHOWING THE DISCHARGES OF THE GHATA-PRABHA RIVER AT THE DHUPDAL WEIR (GOKAK CANAL).

(2) STATEMENT SHOWING DISCHARGES OVER THE WEIR AT VIR FROM THE YEAR 1906

FOR

NIRA RIGHT BANK CANAL

(Project No. 11, and item No. 50 of Statement V.)

Abstract showing the discharges of the

Months.	1904-1905	1905-1906
April	1,952	2,011
May	1,928	2,126
June	276,427	11,021
July	422,203	326,567
August	263,670	130,576
September	76,543	62,209
October	28,612	11,715
November	4,658	3,036
December	3,450	2,617
January	2,674	2,485
February	2,120	2,220
March	2,028	2,026
April	....	....
Total of the daily rates of discharge in cubic feet per second ..	1,086,265	618,549
Total quantity discharged in million cubic feet = above line ×86,400	93,853	53,443
Add—Contents of the tank on 1st April following of every year upto 1921-22 and on 1st May 1923, respectively ..	397	432
Total million cubic feet	94,250	53,875
Deduct—Contents of the tank on 31st March of every previous year upto 1921-22 and on 30th April 1922, respectively ..	446	494
Grand Total, million cubic feet	93,804	53,381

Note.—Figures for the years 1888-89 to 1903-1904 also are available. The total of the daily rates of discharge in cusecs for April 1922 was 2,090.

Ghataprabha river at the Dhupdal weir (Gokak Canal).

1906-1907	1907-1908	1908-1909	1909-1910	1910-1911	1911-1912	1912-1913
2,011	2,210	2,171	1,829	2,153	1,979	2,360
2,442	2,282	2,008	679	812	1,852	4,863
50,488	53,331	33,422	63,389	120,160	158,591	67,394
410,838	432,356	1,042,713	881,400	311,802	283,423	1,187,584
246,214	1,051,461	617,575	187,352	582,549	367,883	583,610
158,408	160,013	76,842	56,945	108,511	116,217	97,226
30,332	59,671	16,280	36,999	141,524	24,458	30,925
12,860	8,453	5,291	3,091	11,752	5,489	3,876
3,588	3,861	3,101	2,912	9,777	4,370	3,806
2,793	2,081	2,824	2,523	2,450	2,802	2,953
2,342	2,358	2,213	2,342	1,995	2,104	2,304
2,081	2,252	2,156	2,157	1,979	2,023	2,084
....	....	....	....	....	....	....
933,097	1,781,138	1,800,596	1,247,227	1,265,464	976,186	1,997,990
80,619	158,890	156,099	107,760	109,336	84,342	172,026
487	536	379	379	516	576	497
81,106	154,426	156,469	108,139	109,852	84,918	173,122
519	513	536	389	585	373	378
80,587	153,913	155,933	107,750	109,267	84,545	172,750

Abstract showing the discharges of the

Months.	1913–1914	1914–1915	1915–1916
April	2,071	854	1,012
May	1,825	1,060	4,127
June	172,064	33,313	151,225
July	441,057	1,233,003	491,147
August	360,585	877,806	381,020
September	92,751	283,032	154,507
October	28,210	47,021	98,219
November	3,013	17,586	17,017
December	2,808	9,435	5,800
January	2,608	2,080	3,521
February	1,193	2,075	2,270
March	999	1,801	1,801
April	....	....	....
Total of the daily rates of discharge in cubic feet per second ..	1,080,130	2,511,071	1,310,716
Total quantity discharged in million cubic feet—above line ×86,400	93,324	217,034	113,246
Add—Contents of the tank on 1st April following of every year upto 1921-22 and on 1st May 1923, respectively ..	143	705	724
Total million cubic feet	93,467	217,739	113,970
Deduct—Contents of the tank on 31st March of every previous year upto 1921-22 and on 30th April 1922, respectively ..	509	148	718
Grand Total, million cubic feet	92,958	217,591	113,252

Ghataprabha river at the Dhupdal weir (Gokák Canal)—concld.

1916–1917	1917–1918	1918–1919	1919–1920	1920–1921	1921–1922	1922–1923	1923-24
1,788	2,168	2,250	653	1,057	882	....	....
14,320	2,319	4,215	1,178	706	836	1,610	2,357
251,343	106,506	56,887	117,858	100,052	119,239	100,533	15,953
197,246	337,326	154,241	376,258	629,525	424,689	667,712	1,152,609
662,427	261,394	384,056	448,107	218,350	461,448	331,476	662,091
155,439	332,025	73,862	112,969	77,217	158,247	129,452	32,179
57,805	179,350	17,175	62,033	30,873	37,550	25,280	20,595
189,203	43,473	9,813	13,850	5,080	66,833	24,688	3,077
16,081	11,244	3,020	7,638	3,018	4,179	6,267	2,766
8,614	7,425	2,875	3,222	2,870	3,343	3,222	2,659
3,708	2,356	2,058	2,226	2,028	2,558	3,398	1,228
2,231	2,116	1,592	1,003	1,417	2,148	1,072	844
....	....	....	....	....	....	8,500	836
1,550,704	1,378,202	712,644	1,147,085	1,074,302	1,281,952	1,310,110	1,946,203
133,081	119,084	61,572	99,108	92,827	110,760	113,103	168,204
1,001	967	298	541	265	503	608	239
134,082	120,051	61,870	99,649	93,092	111,263	113,891	168,443
786	1,008	974	304	555	261	302	698
134,240	119,043	60,896	99,345	92,537	111,002	113,589	167,745

Statement showing discharges over the

Month.	Total discharge			
	1906.	1907.	1908.	1909.
	C. ft.	C. ft.	C. ft.	C. ft.
June	3,692,347,200	1,646,013,600	....	8,048,419,200
July	25,621,617,000	32,761,281,600	46,201,708,800	46,129,478,400
August	14,560,473,600	54,453,859,200	40,297,478,400	10,712,390,400
September	7,260,102,000	3,502,785,600	5,049,048,000	4,823,452,800
October	....	675,734,400	....	398,300,400
November	....	....	....	....
Total ..	51,134,630,400	93,040,574,400	91,548,835,200	70,112,131,200

Month.	Total discharge			
	1915.	1916.	1917.	1918.
	C. ft.	C. ft.	C. ft.	C. ft.
June	21,750,103,200	....	4,627,454,400	754,358,400
July	23,012,387,600	7,135,344,000	21,771,703,200	2,801,080,800
August	19,200,844,800	30,004,150,800	24,784,790,400	17,475,523,200
September	10,420,068,000	8,892,840,600	16,840,330,200	2,883,772,800
October	3,030,916,800	2,552,212,800	11,707,761,600	1,126,619,200
November	....	1,023,628,800	1,144,540,800	....
Total	77,427,230,400	50,208,102,000	81,885,640,600	25,131,254,400

weir at Vir from the year 1906.

of month.

1910.	1911.	1912.	1913.	1914.
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
5,826,643,200	4,664,520,000	265,723,200	21,020,160,000	590,025,600
19,680,321,600	3,430,425,600	40,767,883,200	29,902,780,800	55,081,300,000
36,458,360,000	26,448,552,000	24,712,560,000	13,736,006,400	39,003,681,600
6,050,116,800	5,274,288,000	2,006,774,400	3,642,537,600	19,411,704,000
10,373,018,400	....	580,038,400	948,369,600	....
....	....	....	....	....
78,384,360,000	39,817,785,600	68,932,979,200	69,250,464,000	114,656,711,200

of month.

1919.	1920.	1921.	1922.	1923.
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
3,833,568,000	4,553,582,400	....	7,215,225,600	....
20,013,235,200	45,481,910,400	21,727,656,000	46,222,320,000	20,604,500,400
42,315,600,000	16,148,116,800	30,260,174,400	24,153,263,000	38,425,579,200
11,905,876,800	3,490,089,600	8,061,370,200	11,085,818,400	3,748,464,000
3,855,427,200	150,206,400	565,660,800	1,373,002,800	12,312,000
....	....	....	....	....
91,823,803,200	69,824,505,600	60,614,870,400	90,045,700,000	68,700,945,600

Note by the Chief Engineer for Irrigation reviewing the Annual Report of supplies of water available for irrigation works and of the discharge from catchment areas in the Bombay Presidency for the year 1923.

The discharges recorded this year at Mithankot below the junction of the Chenab with the Indus are higher than those at Sukkur. The discharges at Dera Ghazi Khan and Panjnad, recorded by the Punjab Government, have been given this year (as an addition to statement I) as was done in the Annual Report for 1922.

2. The Report deals with the results of observations made from 1st May to 30th April following. The gauge curves at Bukkur and Kotri pertain to the year ending 31st December.

3. There are no changes in statements II, III and IV.

4. Statement V has been prepared on the lines of one for last year. The discharge from most of the rivers in the Deccan and Gujarat was lower than last year, due to less rainfall.

5. Most of the tanks shown in statement VI obtained a smaller supply than last year.

6. This year there are five additions to statement No. VII. Observations for silt deposited in tanks were made for the following tanks (in statement VIII) :—

(1) Gokak basin ;

(2) Dambal tank, and

(3) Mavinkop tank.

7. Observations for the distribution of total losses due to (1) evaporation, (2) leakage and (3) percolation and absorption (statement IX) have been for seven tanks only during the year under report.

R. T. HARRISON,
Chief Engineer for Irrigation.

5th December 1925.

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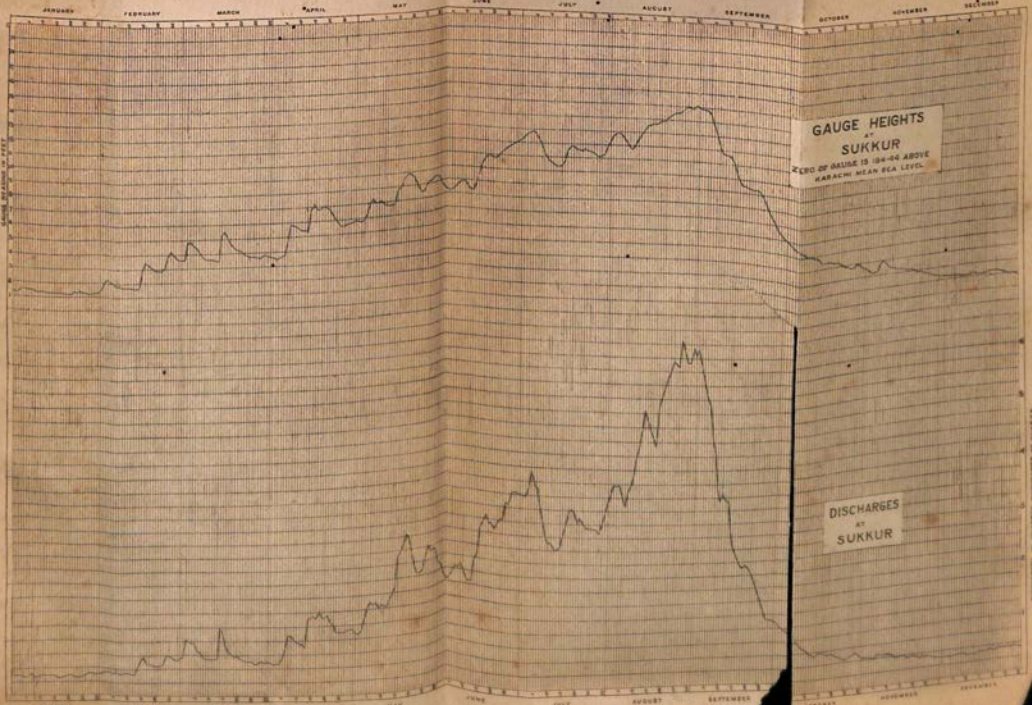
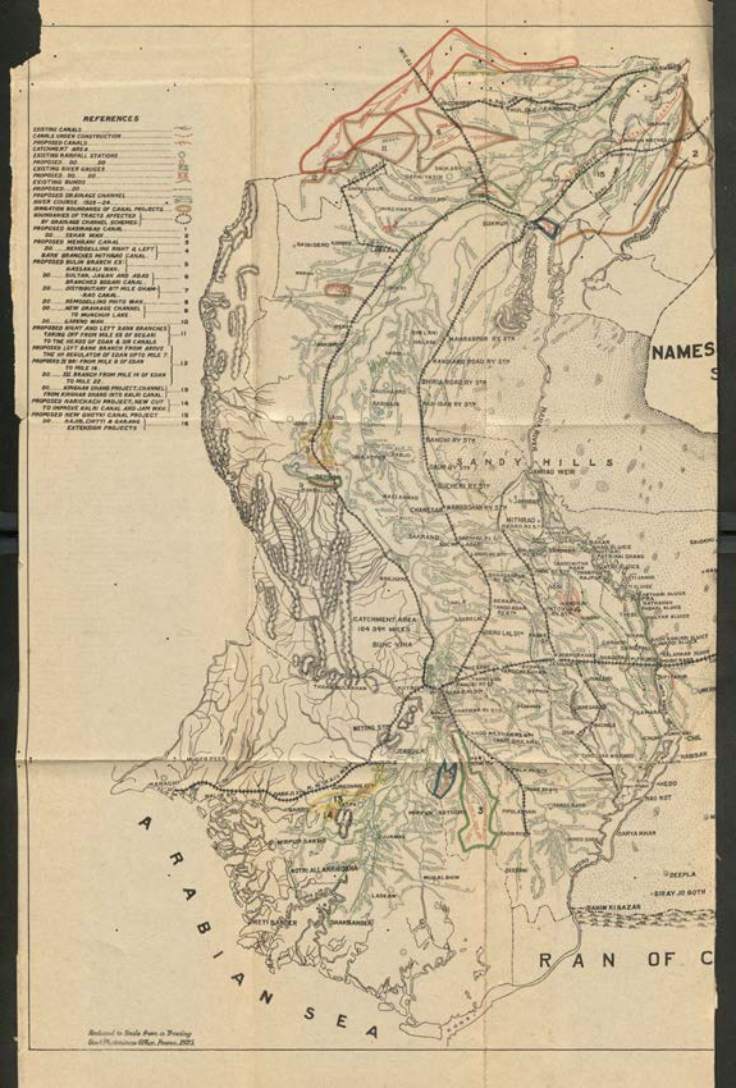
RIVER INDUS

1923




REFERENCES
EXISTING CANALS
CANALS UNDER CONSTRUCTION
PROPOSED CANALS
CATCHMENT AREA
EXISTING RAINFALL STATIONS
PROPOSED
EXISTING RIVER GAUGES
PROPOSED
EXISTING
PROPOSED
PROPOSED DRAINAGE CHANNEL
RIVER COURSE 1925-26
IRRIGATION BOUNDARIES OF CANAL PROJECTS
BOUNDARIES OF TRACTS AFFECTED BY DRAINAGE CHANNEL SCHEMES
PROPOSED NARMADA CANAL
DO. DEKAN WAH
PROPOSED MEHKANI CANAL
DO. REMODELLING RIGHT & LEFT BANK BRANCHES MITHRAO CANAL
PROPOSED BOLAN BRANCH EXT.
DO. KASSAKALI WAH
DO. SULTAN, JABAN AND ASAD BRANCHES BEGARI CANAL
DO. DISTRIBUTARY 81ST MILE DHARI RAO CANAL
DO. REMODELLING PHUTU WAH
DO. NEW DRAINAGE CHANNEL
DO. KHARI MINOR LAKE
DO. LAKEND WAH
PROPOSED RIGHT AND LEFT BANK BRANCHES TAKING OFF FROM MILE 55 OF BEGARI TO THE HEADS OF SOAN & SIR CANALS
PROPOSED LEFT BANK BRANCH FROM ABOVE THE HY REGULATOR OF SOAN UPTO MILE 7
PROPOSED 21 MR FROM MILE 9 OF SOAN TO MILE 16
DO. DO BRANCH FROM MILE 14 OF SOAN TO MILE 22
DO. KIRSHAK DHARA PROJECT, CHANNEL FROM KIRSHAK DHARA INTO KALRI CANAL
PROPOSED HARCHACHI PROJECT, NEW CUT TO IMPROVE KALRI CANAL AND JAM WAH
PROPOSED NEW SINTRI CANAL PROJECT
DO. KAJRI, CHITTI & KARANG EXTENSION PROJECTS
NAMES
SANDY HILLS
CATCHMENT AREA
104 SQM MILES
BUND VIHA
ARABIAN SEA
RAN OF C
Reduced to Scale from a Drawing
Chief Mechanical Officer, Poona, 1925.

MAP
OF
SIND
SHOWING
& LOCATIONS OF PROJECTS
Scale 16 Miles to an Inch

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on 01 February, 2020